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Editorially speaking . . .

SINCE CIVILIZATION BEGAN, man has passed through the Old Stone Age, the New Stone Age, the Bronze and Iron Ages. In these days we are inclined to speak of the Atomic Age, but in reality we have not yet arrived there. This period is perhaps more properly, if somewhat facetiously, to be called the Age of Paper. For despite the existence of radio and television we still depend most of all on the written word, and surely never before have so many words been written. The quantity of paper used in these times for documents, for newspapers and for millions of copies of books is quite incalculable.

So, in a roundabout way, we come to the relatively minor—but for us major—problem of how to cope with the increasing number of new publications which reach our desk. The amount of archaeological books, both scholarly and popular, which appear every month is astonishing, and our book review section has become less and less able to deal with them.

In order to avoid keeping book reviews on file for many months—now unfortunately the case—it has been decided to divide our review section into two parts: longer reviews, and *Brief Notices*, written by the editors and by members of the Editorial Advisory Board. Included in *Brief Notices* will be several kinds of books: those strictly for specialists—often of the highest importance but providing, so to speak, the raw materials of archaeology; books which are slightly outside our field of interest but which deserve notice; and, finally, publications of lesser importance. Longer reviews will be reserved for volumes of general archaeological interest. The page listing *New Books* has been abandoned in favor of this more detailed listing of fewer books. We look forward to readers' comments, favorable and otherwise.

SUBSCRIBERS WILL NOTICE that the present issue contains many more advertisements than usual. They will realize that the added revenue which these represent is greatly welcomed. It will be used to improve the magazine both in quantity and quality. An advance in quantity is already in effect: this issue contains eight more pages than any previous number, so that the amount of reading matter is greater than before. We shall continue to give our readers the benefit of our fortune, as it improves.

A VARIED AND SATISFYING FEAST lies ahead in coming issues. In the Western Hemisphere, there will be reports from Chile, Peru, Guatemala, and from the island of St. Lucia in the Caribbean. From farther north we shall have accounts of the Salvage Program, so vital to archaeology in the United States today, of new discoveries in Georgia, of an interesting kind of map made by the Eskimos.

From the European continent will come reports on salvage archaeology in England, on excavations in Sweden, Italy, Czechoslovakia, Yugoslavia and Greece. From farther east, there will be articles on work in Turkey, Cyprus, Afghanistan and, even farther, in Thailand. All these articles are already in hand; others will be coming in from distant parts and from nearer home, reflecting the great amount of research and excavation going on everywhere at the present time. We take this opportunity to invite readers to send us information about their localities and to tell us of research of which we may not have heard.

There will be other articles of a general nature—too many to mention here. We hope to present an interesting series on techniques used in ancient arts and crafts. Among them will be accounts of how the Egyptian pyramids were built, of the way the Greeks and Romans "made money," of the techniques of carving sculpture, of the making of clay oil lamps, and other similar subjects. These fundamental studies by experts should be useful to all who are interested in the ancient world.

DURING THE MONTHS OF APRIL, MAY AND JUNE we shall be advertising in various periodicals, as extensively as our budget will allow, a "special introductory offer" of $3.75 for one year's subscription. The aim of this is twofold: first, to secure a larger audience for ARCHAEOLOGY; second, to ascertain whether a lower subscription rate will substantially increase our circulation. Present subscribers can help, if they will, by mentioning this offer to friends and acquaintances who might be interested. If the results warrant it, a lower rate may later be permanently fixed. The special offer now in effect will terminate July 1, 1956. Please note that as usual there is no extra charge for foreign orders. Subscriptions should be addressed to ARCHAEOLOGY, 608 University of Cincinnati Library, Cincinnati 21, Ohio.

1. Bowl with painted scene, the Judgment of Paris. Collection Ray Winfield Smith, on loan to the Louvre Museum. Diameter 20.5 cm.

A MASTERPIECE OF LATE ROMAN GLASS PAINTING

By George M. A. Hanfmann

The colorful glass plate adorned with the Judgment of Paris which appears on the cover of this issue is a find of Ray Winfield Smith, whose knowledge and connoisseurship have made him a leader in collecting and research on ancient glass. A splendid and sumptuous piece (Figures 1-3), it has great importance not only for the study of a fascinating and rather rare kind of ancient painted glass, but also as a representative of late Roman drawing. Its owner has described the way in which the bowl and its painting were made:

"The Judgment of Paris bowl is a typical specimen of Syrian ware, both as to shape and material. The glass blower produced it by separating a segment from a large bubble while still hot. After fashioning the rim and dulling its sharp edges by reheating in the muffle furnace, he turned it over to the artist for decoration. This seems to have been carried out in unfired painting, for the original glass surface shows no signs of fusion with the pigments in areas where it has been exposed by detached portions of the painting. The colors were probably mixed in solution with a gum and are almost opaque, despite the thinness with which they were applied. It is remarkable that the ancients were able to produce an adhesive which has not spoiled the delicate shades of the painting with the decomposition of the centuries.

"The artist placed the decoration on the exterior in such a way that the scene would be viewed from the inside through the glass at the moment a user raised the bowl to his lips or leaned over it in pouring a libation. However, any use of the object would have been hazardous in view of the extreme fragility and entirely impractical construction. If the bowl (weighing only 100 grams) is set on a flat surface, the entire impact is absorbed in the centre of the convex bottom, though the exposed paint at that point needs all the shielding it can be given. The bowl was almost certainly left in some sort of support as a show piece.

"When the artist chose to paint the external bottom of the bowl, he imposed on himself a sort of reverse procedure, for he had to get the highlights and other incidental details on his glass before they were backed up by the covering pigments. Thus, the contours went on first. . . . Next to be applied were the delicate shadings of pale tints. The highlights on the bodies and the in-

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LATE ROMAN GLASS PAINTING *continued*

2. Detail of glass bowl with Judgment of Paris. Paris is seated, Hermes (name inscribed at his right thigh) standing beside him, "Desire" flying (*Pothos* inscribed beneath). All inscriptions are in Greek letters. The interior of the bowl was heavily iridescent; in order to make the design more visible the iridescence has been neutralized. Parts of the picture are lost or indistinct.

3. Detail of glass bowl with Judgment of Paris. To the left the pointing hands of Hermes and Pothos, in the center Aphrodite. The veiled seated figure is Hera holding a scepter. At lower right, part of Athena and the spear in her right hand.

scriptions were also painted after the contours. Finally, the covering colors were applied in such a manner that the dividing line between two colors ran down the centre of the black outlines. . . .

"The superposition in some places of three or four liquid pigments was so skilfully executed that nowhere has a color dissolved or dulled the sharpness of an underlying detail. The ability of the medieval glass painter in this respect has evoked the admiration of modern technicians, and we see here that the Roman craftsman was no less capable." (*Burlington Magazine of Art* 95 [June 1953] 187).

The subject of the bowl is the triumph of love, a fairy tale turned history and legend, the cause of the famous war of Greek against Trojan for a ravishing though faithless woman. Eris, goddess of discord, tossed among her sister deities a golden apple inscribed "to the fairest." Thereupon Zeus arranged the first beauty contest of history. In bitter rivalry Hera, Athena and Aphrodite, escorted by Hermes, messenger of the gods, proceeded to Mount Ida where the Trojan prince, Paris, was peacefully pasturing his flocks. The three immortals called upon him to judge their beauty and each sought to sway him with alluring promises. Hera offered him kingship over Asia, Athena constant success in war, and Aphrodite the most desirable woman in the world—Helen, wife of Menelaos of Sparta. Succumbing to the power of love, Paris braved the vengeance of the other contestants and fatefully awarded the prize to Aphrodite. Helen eloped with him to Troy, and thus her face "launched a thousand ships" of pursuing avengers from her native shores. For ten years a host of Greek and Trojan heroes fought before Troy, until Paris was killed by Philoctetes' arrows, Troy was captured and Priam's line wiped out.

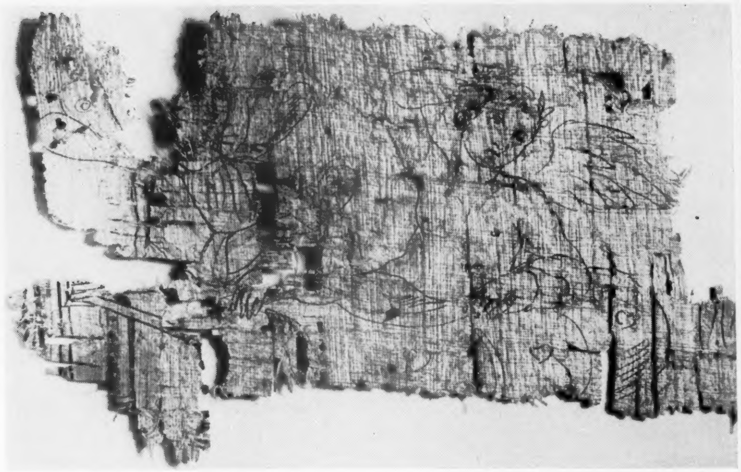
All this was told and retold in prose and verse, in drama and pantomime, in sculpture and painting, first by Greeks and then by Romans. By the time the glass bowl was made, the subject had been almost entirely divested of religious associations. The myth was used in the same way as the legends which figured in late Roman orations and poems—to shed poetic luster upon some special event. Verses composed for weddings were lavish in mythological comparisons of bride and bridegroom with famous lovers of old. What could be more fittingly portrayed on a wedding present than the tale of Paris—the youth who risked all to win the most beautiful woman as his wife? It is an attractive surmise that the Paris bowl may have been made for such a purpose. We know that toilet boxes and silver plate, decorated with mythological allusions to love, were given not only to pagans but even to early Christians on their wedding days. Thus on a precious bridal casket of silver found in Rome, Aphrodite, combing her golden hair, comes riding over the sea, while below the bride prepares for the wedding; the inscription proclaims: "Secundus and Proiecta, live in Christ!" Such costly wedding gifts, cherished through life, might well have accompanied their owner to her grave; hence perhaps the astonishing survival of a piece as fragile as the Paris bowl.

The painter tells his story with a rather strange emphasis. The figures do not seem to respond very much to one another. The scene is solemn and sedate instead of gay and excited. On the left, Paris in Oriental attire (the costume of Parthians and Persians rather than of legendary Phrygians) looks stupefied and fumbles with his coat. He seems to have forgotten the shepherd's crook which he clutches in his right hand. Paris' eyes turn toward the spectator as if to seek his aid in this perplexity. Hermes (identified by an inscription) turns to Paris and cocks a quizzical eyebrow as he points to Aphrodite. His halo shows that divine radiance accompanies the messenger of Zeus. Hermes' gesture is emphatically repeated by a little *putto* rushing through the air toward his mother Aphrodite. The inscription tells us that he is not Eros (Love), whom we would expect, but his brother Pothos (Desire), presumably Paris' desire for Helen, or else, more generally, his desire for beauty. In the center and apex of the group Aphrodite, goddess of love, displays her charms under the canopy of a billowing cloak. Her posture and position betoken victory. By contrast Hera, the sceptered and veiled Queen of Heaven, seems to be drooping. Seated at her side is the martial Athena with spear and shield.

The high point of the picture is the dazzling revelation of the semi-nude Aphrodite. The painter is following an unusual version of the myth known to us from the early Byzantine poem of Colluthus (ca. A.D. 500) but going back to Hellenistic times. Zeus had decreed that the goddesses should be judged only by their faces, but Aphrodite promptly "loosened the honeyed girdle of Loves" and "lifted up her deep-bosomed robe and bared her breasts" (Colluthus, *The Rape of Helen,* 155-158). It is this sudden dénouement that Hermes and Pothos seek to point out to Paris.

A ram is placed in the lower center, literally "at Aphrodite's feet." He looks pugnacious, ready to take on all comers for the sake of his lady love, who reclines placidly at his side. Paris' animal charges, united in love by Aphrodite, exemplify her power and prefigure the future of Paris and Helen.

To read the picture in this way may sound like arbitrary whimsy, but it is precisely this type of allusive representation that artists of late Roman times delighted in. For example, in the Palestinian city of Gaza, the pious



4. Pen and ink drawing on papyrus, found at Oxyrhynchus in Egypt. About A.D. 100. Amor reclines on a bed with soft cushions. Behind him is Psyche with butterfly wings. Museo Archeologico, Florence. Photograph courtesy Soprintendenza di Antichità, Firenze.

Christian theologian Procopius (ca. A.D. 500) saw a painting of lovesick Phaedra which he enthusiastically described and interpreted as the triumph of love. There, as on the Paris bowl, a flying Eros symbolizes desire. Instead of a ram and a ewe, "a male and female dove are enjoying the love of each other" (*Ekphrasis,* 9, 18, P. Friedländer); the pure love of turtle doves and the shameless love of dogs were contrasted in the picture as allusions to the two kinds of love between which Phaedra was torn.

In her account of the Judgment of Paris bowl, G. M. A. Richter has shown that practically every figure of the composition appears in earlier Roman paintings and sculpture. We shall not dwell here on this imitative and traditional aspect. It is rather as a rare example of late Roman drawing that the Paris bowl merits close attention. A few comparisons may help in describing its characteristic qualities.

A charming pen and ink drawing of Amor and Psyche (Figure 4) illustrates the style of the early Roman Empire which stands in the tradition of Classical Greek draftsmanship. Animated, delicate lines move swiftly in short undulation. Together with a few counterstrokes, bits of hatching and some swiftly sketched detail they help the artist to evoke the vision of the soft, rounded body, relaxed gesture and languorous, gliding gaze of Amor.

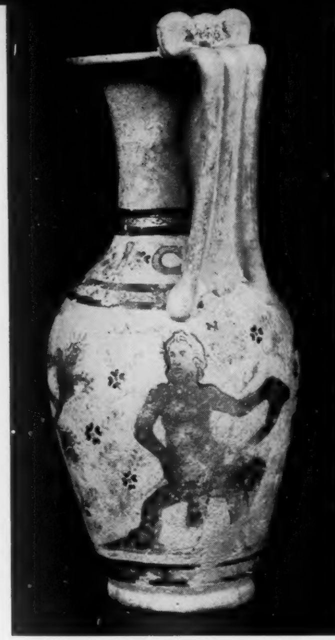
The beginning decline of the Classical tradition is seen in the figures on a gold-painted glass vase, which shows Apollo's amorous pursuit of Daphne (Figures 5 and 6). The drawing is simpler and heavier, the outlines more continuous, the bodies flatter than in the Amor and Psyche drawing. Yet the draftsman persuades us that his Daphne and his Ladon can still move, at least in slow motion, as they turn to view Apollo's frustrated attempt. The glances are mildly attentive, without such emotion as one might expect when faced with the miraculous transformation of a girl into a tree.

The Paris bowl (Figures 1, 2, and 3) crosses the divide between the Classical and the late antique world. The fulness of physical life is yielding to immobility. The frozen, schematic postures of the figures are conditioned by the long outlines of uniform thickness drawn in simple curves. They describe only in a very general way the rounded portions of the human body. Hatching and highlights do the rest.

If we let our eye run along the outlines of the head and arms of Hermes (Figure 2) and then turn back to the drawing of Amor (Figure 4), we immediately perceive how the draftsman of the Paris bowl has replaced diversified vitality and motion by stately but static formulae.

The use of heavy, continuous outlining as on the Paris bowl was not universal, even in late Roman times. One might surmise that a resurgence of ancient Near Eastern taste for uniform delineation was responsible for the use of this style by the Syrian painter of the Paris bowl. Indeed, a ruder kind of continuous outlining is found in some paintings from Dura (Figure 7), the frontier town on the Euphrates where the influence of Parthian art was marked. Painted earlier than the Paris bowl, they herald

5. Painted glass jug, found in the Crimea but probably made in Syria. About A.D. 200. Opaque white background, red and gold bands, golden figures and tree with black outlines. Daphne (name inscribed) being transformed into a laurel tree to escape the clutching hands of Apollo (to the left). Height 23 cm. Collection Ray Winfield Smith, on loan to Dumbarton Oaks Collection, Washington, D. C.



6. Painted glass jug. The river god Ladon, father of Daphne, is shown here beside her. As on the Paris bowl, Pothos appears in this love scene, flying behind Apollo.

the revival of Near Eastern attitudes which subsequently may be discerned in the art products of the great cities of Roman Syria.

Ray Winfield Smith has suggested that the Paris bowl was made in the luxury-loving capital of Syria, Antioch. The subject would well suit the Antiochenes. With characteristic local pride they claimed that the goddesses came to be judged not to Mount Ida but to the lovely resort of Daphne near Antioch (Libanius, *Antiochikos* XI.241). Of the long series of splendid mosaics which were discovered in the excavations of Antioch, none seems sufficiently similar to the Paris bowl to prove cogently its attribution to Antioch. The mosaics are helpful in another way, however. From the development of their style we can derive some idea of the possible date of the Paris bowl design. A cautious appraisal would allow a span of a century, from about A.D. 250 to 350. I am inclined to think that the time of Constantine and his successors is perhaps the most likely guess.* This was the age when Syria was a major battle ground between the last defenders of the old pagan heritage and the proponents and creators of a new Christian culture. The Paris bowl is a fascinating document for the survival of Greek mythology during the transition from Classical to Byzantine art.

7. Mithras Hunting. Wall painting found in the Mithraeum at Dura. Last phase, ca. A.D. 240. Photograph courtesy Yale University Art Gallery.

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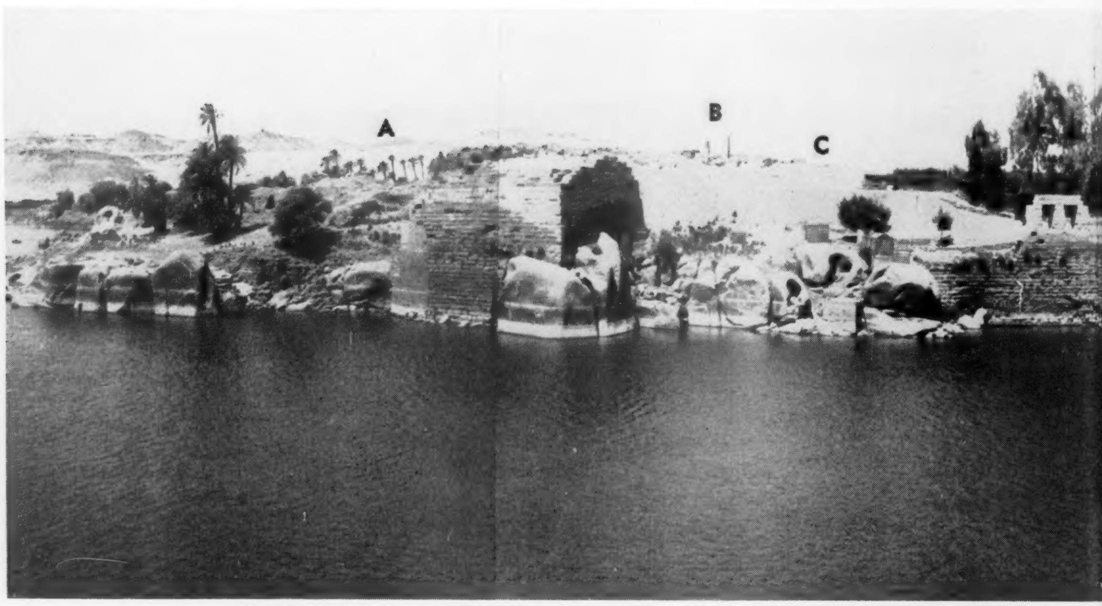
* A painting of Perseus and Andromeda from Via del Mare, Rome, is of the same period (P. Ducati, *L'arte in Roma* [1938] plate 256, 2). For mosaics of Antioch which compare in various respects with the Paris bowl see D. Levi, *Antioch Mosaic Pavements* (1947) plates 30, 34, 65.

HEKAIB
THE DEIFIED GOVERNOR OF ELEPHANTINE

By Labib Habachi

• Born at Mansurah, Lower Egypt, in 1906, the author took his degree in Egyptology in 1928 at Cairo University. He served as Inspector in the Antiquities Department until 1944 when he was promoted to Chief Inspector. He has been in charge of excavations in the Delta, in the Fayum, at Luxor and at Aswan, and has been responsible for many an important discovery. Dr. Habachi contributes numerous articles to scholarly journals and now has two books in press: *Excavations at Tell Basta* and *The Temple of Hekaib at Elephantine.*



1. View of the southern part of the island of Elephantine. To the right is the garden of the Aswan Museum with Hekaib's temple at the back (not visible in the picture); to the left are the ruins of the old town.

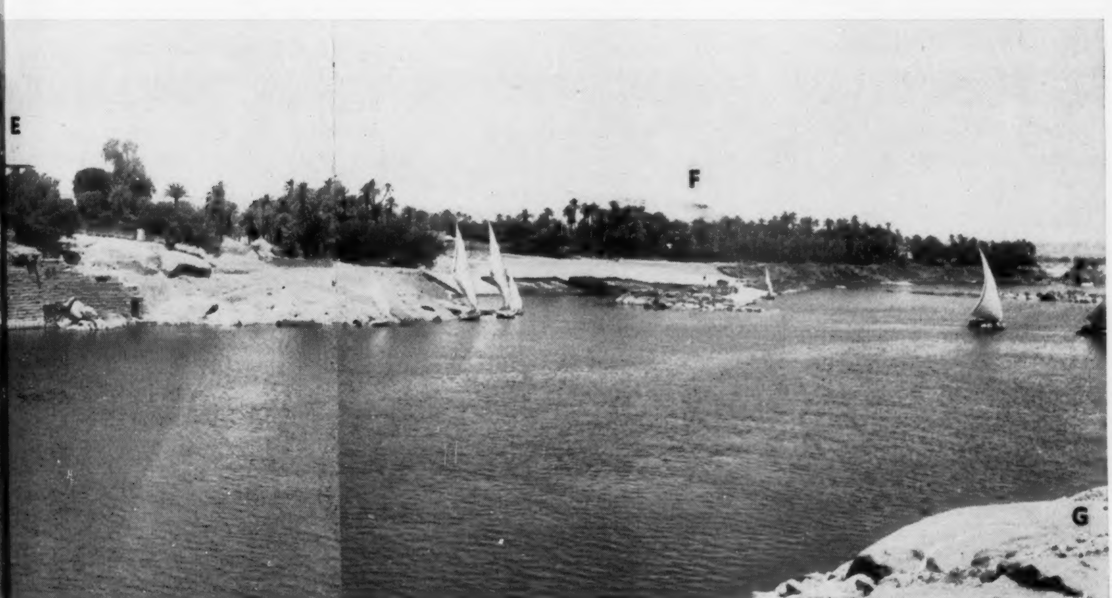
LONG BEFORE the ancient Egyptian language was deciphered and the ruins of tombs, temples and towns were scientifically examined, much was known about the ancient Egyptians and their great civilization. This was due to accounts which have come down to us from Greek and Arab travelers who so marveled at the things they saw that they left a written record of their journeys in Egypt. Of these Herodotus is the most important, and his account, written in the middle of the fifth century B.C., is considered as the most accurate.

Herodotus found that the Egyptian religion of that time differed greatly from the religion of Greece. He says that among their divinities the Egyptians had no heroes and heroines such as thronged Greek mythology. According to the Classical conception of heroism this is true, for only the legend of Horus and Seth can be compared with the Greek myths.

Yet the Egyptians admired and even worshiped their great men for their intellectual achievements. At various periods men who rendered great service to their town or country were worshiped. Among these the earliest known is Imhotep, the famous architect and vizier of King Zoser. He lived in an early century of the third millennium B.C. and was responsible for the building of the king's temple and tomb at Sakkara. This tomb, now known as the Step Pyramid, is one of the largest buildings in Egypt, while the mortuary temple beside it is one of the earliest stone buildings of any size and one of the most interesting examples of early Egyptian architecture. For his great wisdom Imhotep was deified; though only at a much later period, when the Egyptians were casting many backward glances at their former greatness, did his worship become popular. In the Graeco-Roman period Imhotep was identified with Asklepios, the god of medicine in Greece.

Some time after Imhotep, about the twenty-sixth century B.C., other great men were also deified. The most noteworthy were Kagemni, vizier from Memphis, and Isi, governor of Edfu. But little is known about their worship, which never spread throughout the country but was confined to their localities.

At the end of the fifteenth century B.C., however, we



A. St. Simeon's Monastery **B.** Ruins of Elephantine with the Portal of Alexander II **C.** Hekaib's Temple

D. Nilometer **E.** Aswan Museum **F.** Qubbet el-Hawa Cemetery of the Nobles **G.** Aswan Town

2. Hekaib's tombs: the one to the left was known previously while that on the extreme right is the newly discovered tomb.

HEKAIB continued

hear of another personality whose genius can be compared in many ways with that of Imhotep. This was Amenhotep, son of Hapu, who was also the architect of a great sovereign. Amenhotep lived in the golden days when the Egyptian empire extended northward to the borders of Mesopotamia and southward almost to the Fourth Cataract. It was a rich and splendid age and Amenhotep planned for the Pharaoh Amenhotep III many great buildings in Upper and Lower Egypt, in Nubia and the Sudan as far south as the Third Cataract. He enjoyed a long and prosperous life which was reputed to have lasted 110 years. After his death he was worshiped as Imhotep had been before him, but similarly he did not become a popular god until a much later period.

THE WORSHIP OF private individuals in ancient Egypt became a matter of special interest to me as the result of an excavation at Elephantine, the beautiful island opposite Aswan, some 550 miles south of Cairo. Here are the ruins of the capital of the first province of Upper Egypt, which was a trading center for the products of Nubia and the Sudan (Figure 1), and here granite was quarried for the royal obelisks, stelae and statues of the Pharaohs and their officials. The mines near at hand were worked for minerals and semi-precious stones, and the island flourished with the trade which these natural resources brought.

In January 1946 we began our excavations on the island, and after a few weeks' work we had uncovered enough of the foundations of a building to be able to say that it was a temple of the Middle Kingdom, dedicated not to a known divinity but to a mysterious and hitherto unknown god named Hekaib. Our work lasted for three months, during which we completely cleared the temple and discovered more than fifty statues, stelae and offering tables. Some fifteen years before, in the same area, our colleague Ed. Ghazouli had unearthed four shrines and found about fifty objects.

The most interesting point in the whole discovery was the dedication of the temple. Many of those who dedicated objects in this temple were referred to as "beloved of Prince Hekaib," others were styled as "honored by Prince Hekaib." More important is the occurrence of the prayer, "May the king give offerings to the gods . . . and to Prince Hekaib," showing that he was undoubtedly deified. Who this Hekaib was and why he was so honored we could not find out from inscriptions on any of the objects unearthed, and for a time there seemed to be no possibility of solving the problem. The idea occurred to us, however, that Hekaib might have lived in Elephantine and been deified as a result of some service to his town. If this were the case, perhaps we could find his burial place among those of the nobles buried in the necropolis of Qubbet el-Hawa opposite the island. Accordingly we made a survey of the cemetery, hoping to find some trace of the tomb of that deified man. After two seasons' work we discovered, next to the tomb of the governor of Elephantine, Hekaib surnamed Pepinakhte (No. 35 in the necropolis), a new tomb which proved to belong to the same man and to his son, the governor Sabni (Figure 2). In the new tomb there was found ample proof for the deification of the governor Hekaib surnamed Pepinakhte. Was this governor the same one who was deified at Elephantine and, if so, can we follow his career to know why he was so honored? Luckily the biographical inscription on the façade of the older tomb (Figure 3) gives us the answer to these questions.

3. The façade of Hekaib's old tomb with the biographical inscription carved on it.

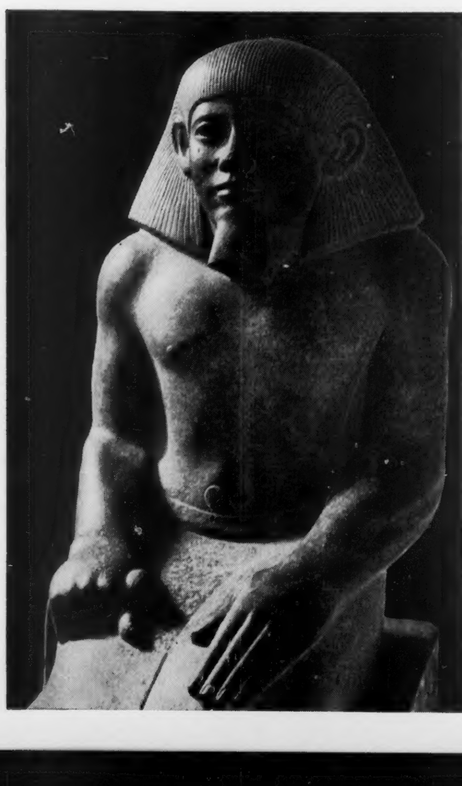
4. General view of the temple of Hekaib, showing its important parts.

A. Chapel of Amenysonb **B.** Chapel of Hekaib **C.** Shrine of Sirenpout II
D. Stelae of Sirenpout I **E.** Shrine of Khema **F.** Shrine of Sirenpout I
G. Shrine of Hekaib **H.** Chapel of Khakauresonb

HEKAIB continued

5. Sirenpout I making an offering to Hekaib, on one of the four stelae erected in Hekaib's honor.

6. Life-size statue of Khema, father of Sirenpout II.



7. Statue of Amenysonb in the chapel he made with an offering table at the entrance.

There it tells us his whole story, saying:

"I was one who spoke good and repeated what was desired; never did I say anything evil to one in authority against anyone, for I desired that my name should stand well with the great god. I gave bread to the hungry and clothes to the naked and I never judged one of two brothers in such a way as to deprive a son of his father's goods. I was one beloved of his father, one praised of his mother, whom his brethren loved.

"The Majesty of my lord sent me to devastate the land of Wawat and Irertyt and I acted so as to please my lord. I slew a great number of them, children of chiefs and overseers of *Shenu* and I carried off a great number of them to the Residence as prisoners, for I was at the head of numerous and mighty soldiers who were stout of heart, and my lord had confidence in me in every expedition on which he sent me.

"Now the Majesty of my lord sent me to pacify these lands, and I acted so that my lord praised me exceedingly. I brought the two chiefs of these lands to the Residence with offerings of live long-horned and short-horned cattle and things which would be useful; I brought them to the Residence, with the children of the chief and the two overseers of the *Shenu* who were with them, as the headmen of the South are wont to do; so excellent was my vigilance in doing what my lord desired.

"Now the Majesty of my lord sent me to the Bedouin land to fetch for him (the body of) the sole companion, the ship's captain (?) and caravan leader 'An'anakhte, who was building a ship there for Punt when the Bedouin Sand-dwellers had slain him and the troop of the army which was with him . . . and the troop which was with me drove off the slayers from them, (even I) the governor, chancellor, sole companion, lector-priest and the caravan leader who puts the fear of Horus into the foreign lands, Pepinakhte whose good name is Hekaib."

THE TITLES GIVEN to Hekaib at the end of his biographical inscription are exactly the same as those found attributed to him in his temple in Elephantine. Again in that temple his son Sabni is shown making an offering to him. This is undoubtedly the same Sabni who was responsible for erecting the new tomb for himself and Hekaib. It is certain, therefore, that the deified Hekaib of Elephantine is the same as the one buried in Qubbet el-Hawa and called Pepinakhte. From his biography it can be seen that he was a great military leader. Twice he commanded punitive expeditions, once in Nubia and another time along the coast of the Red Sea. A third time he went to Nubia to pacify the chiefs and conducted them and their notables on a visit to the Residence. Thus he was a political officer as well as military leader. That he was always speaking good and repeating what was desired, that he gave bread to the hungry and clothes to the naked, are virtues which were attributed to most of the Egyptian nobles, and we need not take them too seriously. It is rather owing to his military career that he was deified. On an offering table found in the temple the owner is styled as "the herald of the warrior Hekaib." Hekaib seems to have lived to a ripe old age, which was also considered as a mark of divine favor. More than once he was referred to on objects found in his tomb as "the old man."

All these accomplishments combined to make of Hekaib quite an important personality, but we still believe that they could not have been sufficient to induce the people to regard him as a god, had it not been for the fact that he was buried at Aswan. In that place, where campaigns would have started for Nubia and the Sudan, there was need for a saint to encourage the people to do their best in fighting in the south. To this saint would be made offerings on the way upstream, asking for his support, and on the way downstream the returning soldiers would again make offerings to him in gratitude for any victory they achieved in battle.

Hekaib seems to have lived and died during the long reign of Pepi II, last king of the Sixth Dynasty (twenty-fifth century B.C.). After his death, and perhaps during the life of his son Sabni, a cult for his worship was started, as can be concluded from the new tomb excavated for him. During the First Intermediate Period, which followed the reign of Pepi II, many persons had their tombs placed about the courtyard in front of his tomb, and by the beginning of the Middle Kingdom the place was almost filled with tombs. As much attention was again being directed to Nubia and the Sudan, it was important to find for the cult of this soldiers' god another, larger place, and this was found in Elephantine. There a temple was started, perhaps by Uahonkh Antef, second king of the Eleventh Dynasty, or even earlier. It was later restored by his successor, perhaps added to by other kings of the same dynasty. In the prosperous days of the Twelfth Dynasty, when Egyptian civilization was being introduced into the south, Hekaib's temple must have attained the height of its fame. The governors of Elephantine in that period were encouraged by their sovereigns to restore his temple and to place there many a statue, stela and offering table (Figure 4).

We may mention particularly Sirenpout I (time of Sesostris I), owner of tomb 36 at Qubbet el-Hawa, who erected a new temple with two shrines, one for himself and another for his spiritual father, Prince Hekaib. In the former he placed a statue of himself and in the latter

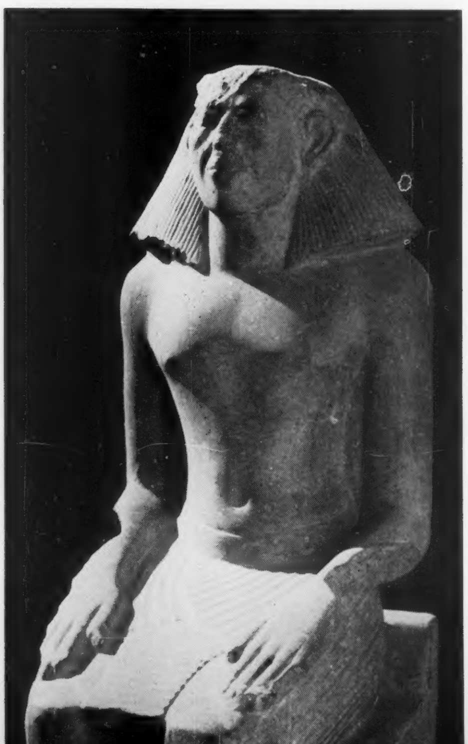
9. Stela showing a group of persons, perhaps members of the same family.

an altar in front of which he placed an offering table whose spout was directed toward a channel extending for more than three meters. Moreover, he built a sort of pedestal with four huge stelae around it (Figure 5), showing that he was much devoted to Hekaib.

We must mention also his grandson Sirenpout II (time of Sesostris II) who added to this temple two other shrines, erecting in each a life-size statue, one depicting himself and the other his father Khema (Figure 6). Chapels were added later by the chief priests Hekaib, his son Amenysonb (Figure 7) and Khakauresonb (Figure 8), all of whom lived in the second half of the Twelfth Dynasty.

Many others added some sort of monument. Even kings dedicated statues to Hekaib. Thus we have statues of Uahonkh Antef of the Eleventh Dynasty, Sesostris III and perhaps Amenemhet III of the Twelfth Dynasty, Sekhemre Amenemhet and Khasekhemre Neferhotep of the Thirteenth Dynasty, and Wadjkhausekhemre Sobkemsaf of the Fourteenth Dynasty. Most of these kings were responsible for launching campaigns against the south, but some of them gave much attention to the region of Aswan, and this was the reason they placed statues in the temple of the saint of the region.

8. Life-size statue of Khakauresonb. Compare the frown on the face of this statue with the smile on the face of the statue of Khema (Figure 6).



Through the objects found in this temple we can trace the evolution of statuary during much of the Middle Kingdom. The statues of individuals which were found there reflect the style of the royal statuary of the period. Thus we can easily see the smile which usually appears on the faces of statues at the beginning of this dynasty (Figure 6) and the frown which is so clear on the faces of the kings at the end of it (Figure 8). Many almost life-size statues of governors survive, showing that governors of that period were considered as kings in their small domains. Other persons and families were also of such standing as to allow them to dedicate important objects like statues and stelae. Through these we can trace several generations in many families (Figure 9). For example, we know the scions of seven successive generations of the family of Sirenpout I, each with his own titles.

All these people dedicated some sort of object in the temple or the *ka*-chapel of Hekaib, hoping that they might thereby gain his favor. In an inscription on one of the statues found in the temple we find the following speech addressed to the people: "O ye who live upon earth, nobles as well as common folk, who may enter this *ka*-chapel, inasmuch as the Prince Hekaib loves you and favors you, hears your call according as ye make the (prayer) *htp-dinsw. . . .*" Here Hekaib is clearly re-

HEKAIB continued

ferred to as a god who can hear the prayers of the people. Thus the temple of Hekaib was undoubtedly thronged with followers every now and then. On one day of the year, however, there must have been a larger crowd than on any other day, for on a statue we read this speech addressed to the people: "O ye who live in Elephantine, as ye desire to see the Prince Hekaib on the morning of the festival of Sokar, say ye (the prayer) 'a thousand of bread and beer. . . .' " This must have been the day of the saint's festival during which he would appear to the people in some way or other.

It is interesting to note that even now in Egypt, during the festivals of certain saints, the saints themselves are expected to appear. When I was young I remember being present at the feast of a saint called Aba Abnoub en-Neheisi in Samannoud (Sebbenytos). There I was told that the saint, who was martyred when he was still a child, during the reign of Diocletian, sometimes used to appear among the children and to play with them. I also remember being present another time in the village of Timai (Themouis) on the feast day of a local saint called Sheikh Abd Allah Ibn Salam. I was shown a vaulted room where the saint and many others were believed to show themselves. The followers of the Sheikh might request that he appear. But many other saints might show themselves as shadows upside down at the top of the vault until at last the Sheikh himself appeared in a recognizable form. The appearance of these shadows was due to a single opening at the top of the vaulted room, through which were reflected the figures of those who passed by outside. Whether it was through a trick or in some other way that Hekaib showed himself on the day of the festival, it is now impossible to say.

What we can safely say is that Hekaib was one of the earliest persons to be deified in ancient Egypt, that his cult was more popular than that of any other divinity of the kind, and that he was the only person worshiped in ancient Egypt for his prowess. Thus he is to be regarded as a hero, comparable to some of the heroes of Greek mythology. Yet his cult ceased to be observed long before Herodotus came to Egypt in the mid-fifth century B.C., so the "father of history" cannot be blamed for believing that among the Egyptians individuals were never worshiped for their bravery.

footnote to an Attic vase, Archaic period

HERAKLES' APOTHEOSIS:

Note the ivy-leaf and the tongue patterns,
and Herakles, stepping into a chariot.
His servant and a god attend.

Iolaus looks toward his master. The horses,
with spidery ankles, clipped manes, ignore the hero.
Apollo faces the other way,

lyre in hand. Lifting the reins, Herakles
steps into the chariot, silhouetted against
a ruddy sky. The heavenly

horses tremble. *Note use of incised lines.*

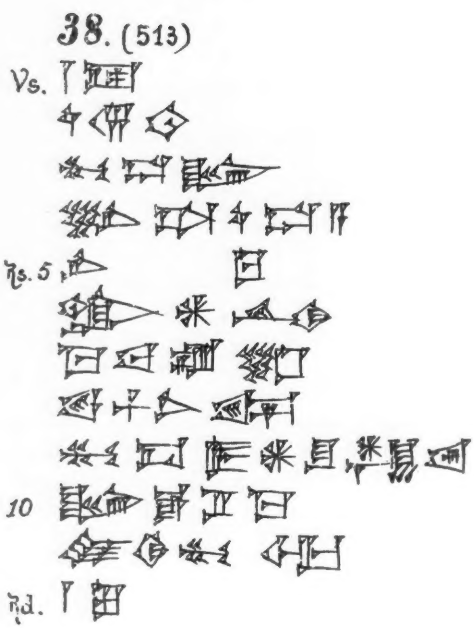
ANNE HYDE GREET

Photo courtesy Museum of Art, Rhode Island School of Design

BOOKKEEPING IN

By TOM B. JONES

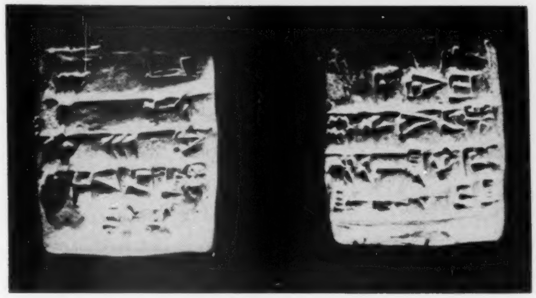
Professor of Ancient History
University of Minnesota



1 "Autograph copy" of a clay tablet from Drehem on which is recorded the delivery of a lamb. From N. Schneider, "Die Drehem- und Djokhatexte im Kloster Montserrat" (*Analecta Orientalia* VII [1932] no. 38).

2 A copy of a Drehem tablet on which a number of deliveries, covering several days, is recorded. From N. Schneider, *op. cit.* no. 13.

ANCIENT SUMER



3 A tablet recording the transfer of five lambs and one kid. Science Museum, St. Paul, Minnesota (Accession 14/3).

SOME INDIVIDUALS seem to have a passion for organization. What is more, history occasionally reveals whole societies in which orderliness approaches a national characteristic. Such a group were the Sumerians, the founders of civilization in the lower Tigris-Euphrates Valley.

To say that the Sumerians were methodical is to understate the case. They invented a system of writing, the cuneiform, which was to be used by many different groups over a wide area long after the Sumerians had disappeared. Religious, literary and scientific works were to be written in the cuneiform, but that was not the purpose for which the Sumerians originally devised it. They invented writing in order to keep track of things: their cattle and sheep and grain. This is clearly demonstrated by the fact that the earliest known Sumerian documents are lists of possessions.

The record-keeping of the Sumerians began in the fourth millennium B.C. and continued throughout their whole history. Most of the Sumerian texts we now possess are "economic," the business records of temple and palace. The bulk of these texts dates from the very end of the Sumerian period, the era of the Third Dynasty of Ur, just before 2000 B.C. Not only do the records attain their greatest volume in this last blaze of Sumerian glory, but also they become most detailed. It was not enough, for example, to note the receipt of an ox, but it must be stated whether it was a grain-fed ox, a grass-fed ox, a young ox, an old ox, or whether it belonged in any one of a dozen other categories.

This is not to suggest that the Sumerians were just congenital enumerators. Rather, their orderliness was the product of necessity. In the first place, ancient Mesopotamia could support a dense population only if the canal system was kept in repair to foster irrigation and prevent floods. This involved the organization and direction of labor; the whole country must be run like an efficient machine. Secondly, the Sumerians lived in a theocracy in which most of the land and its animals and products belonged to the gods. Throughout most of the Sumerian period earthly rulers were considered but the bailiffs of the gods: they as well as their subjects had to render careful accounts of stewardship to supernatural masters. With a touch of cynicism we may wonder whether it was mere coincidence that the most meticulous record-keeping occurred when the kings of the Third Dynasty of Ur had assumed divine status for themselves.

The theocracy forced the Sumerians to *count,* but conditions of life in the valley also forced them to *figure.* Though at present we have no Sumerian mathematical texts, the great development of mathematics in the succeeding Age of Hammurabi suggests that the foundations had already been laid by the Sumerians. It is instructive that the Sumerians became imbued with the concepts of number and organization to such an extent that their thinkers, the priests, postulated an orderly cosmos in

which numbers were assigned even to the gods.

The careful record-keeping of the Sumerians is best illustrated by the tens of thousands of clay tablets from the Ur III period which constitute the accounts of temple and palace officials. The great ledgers from Ur itself with their endless lists of workers, materials and supplies conjure up a picture of the capital as a busy anthill of productive activity. From other towns—Lagash, Umma, Nippur, Adab—come myriads of texts bearing on temple industry, agricultural work, transportation and trade. Most revealing of all, however, are the texts from Drehem, the site of the so-called cattle market of Nippur.

Drehem is the modern name for a mound a few miles southeast of Nippur which has recently been rediscovered by Thorkild Jacobsen of The Oriental Institute, University of Chicago. Records from its archives, however, were first identified nearly fifty years ago (about 1908) after natives in search of antiquities had broken into the mound and plundered the archives, selling the tablets to dealers in Baghdad. As a result, the Drehem texts, numbering perhaps a hundred thousand, were parceled out in small lots to buyers all over the world. Possessed today by museums, libraries and private collectors, they are scattered from Paris to Tokyo, from London to Kansas City. Thousands of the Drehem texts have been published, mostly in the form of "autograph copies" (Figure 1), but thousands more await study and publication. Furthermore, the location of many of the tablets is at present unknown to scholars.

Although a complete picture of the operations at Drehem in Sumerian times cannot be reconstructed until more texts have been made available, it is nevertheless possible to comprehend the general outline of activities there. The procedures followed are reasonably clear, and some of the accounts can be reconstituted at least in part.

Drehem is thought to have functioned as a receiving depot for animals intended mostly for official use in the city of Nippur. Cattle, sheep, goats and other beasts were brought or sent to Drehem by officials, by private persons, or by royal order. These animals were in turn paid out for various religious and secular purposes. For each transaction, whether receipt or disbursement, a separate record was made; such records were then incorporated with others into daily, monthly, and even yearly summaries.

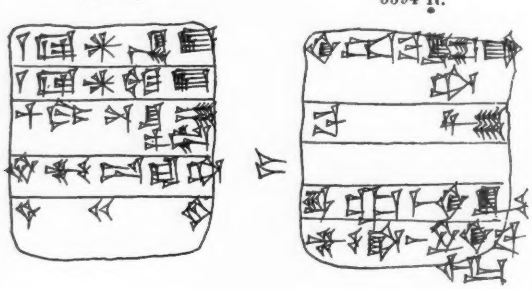
The whole process may be clarified if we follow it, step by step, with illustrations drawn from actual texts. Figure 1 is an "autograph copy" of a Drehem text which may be translated as follows:

Verso	1 lamb,
	on the 15th day,
	delivered (by) royal (order)
	In-ta-è-a (personal name)
Recto	took in charge.
	Gìr, ᵈNanna-
	ma-ba, scribe.
	Month of Eating Gazelles (First Month);
	Year after the Divine Shu-Sîn,
	the King, Si-ma-
	núm (the city) destroyed.
Edge	(total) 1 sheep.

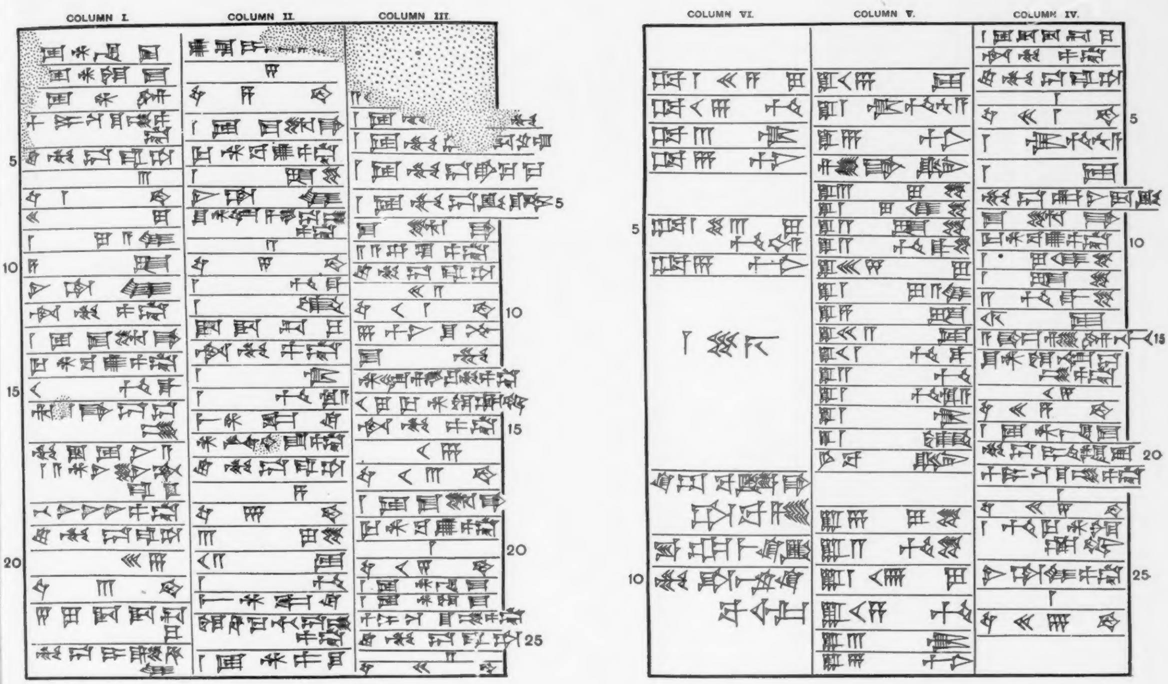
This text, then, is a record of one lamb to be credited to the royal account, brought to Drehem and taken in charge there by an official named In-ta-è-a on the fifteenth day of the first month of the fourth year of King Shu-Sîn (ca. 2050 B.C.). The function of the scribe, ᵈNanna-ma-ba, who is designated as *gìr*, is somewhat uncertain, but he is likely either to have brought the animal to Drehem or to have caused it to be sent there.

Figure 2 shows a summary of a number of transactions similar to the one we have just considered. In this latter record, dated in the twelfth month of the forty-fourth year of King Shulgi (about fifteen years earlier than the

5594 F. 5594 R.



4 A copy of a tablet recording an expenditure of two lambs for sacrifice. From H. de Genouillac, *Tablettes de Dréhem* (Museé du Louvre, Département des Antiquités Orientales) Vol. II, plate 44, no. 5594.



5 A copy of a large tablet listing the daily expenditures of an official over the period of one month. At left, obverse; at right, reverse of tablet. From *Cuneiform Texts from Babylonian Tablets in the British Museum*, Part 32 (1912) plates 10-11, no. 103412.

text of Figure 1), deliveries on several different days are recorded:

Verso	6 sheep, 1 ewe,
	3 kids
	on the 4th day;
	8 sheep, 2 kids,
	on the 5th day;
	6 sheep, 3 ewes,
	1 kid on the 8th day;
Recto	7 sheep, 1 ewe,
	2 kids on the 11th day.
	(Total) 39 (this is, of course, an error)
	šu-gíd (for) the kitchen
	from Na-lu$_5$ (personal name)
	Na-ša$_6$ took in charge.
	Month
	Year

Na-ša$_6$, the receiving official, occupies the same post as that later held by In-ta-è-a in the first transaction considered (Figure 1), but this second text is a summary compiled from records of the deliveries of Na-lu$_5$ on the fourth, fifth, eighth, and eleventh days. Each of these deliveries would have been recorded on a tablet like that shown in Figure 1. The Sumerian term *šu-gíd* is sometimes rendered "tax" or "duty," although it may refer to animals destined to be killed for their hides while their carcasses were sent to the kitchen to feed temple and other employees. In the case of the seven sheep, one ewe and two kids brought in on the eleventh day, we know from another tablet that they and an ox were duly forwarded to the kitchen.

After animals were brought to Drehem, the receiving official might dispose of them in one of several ways. Some animals might be sent to Nippur for sacrifice;

SUMERIAN BOOKKEEPING continued

6 A very large account tablet (7 5/8 x 7½ inches) summarizing receipts over a year's time. Walker Art Gallery, Minneapolis, Minnesota (No. TBW 36).

others might go to the kitchen, the *é-dub-ba* (warehouse?), or the *é-uzu-ga* (bird-house?) where hawks and other predators were kept. Still others, not needed at the moment, might be sent out to the sheepfold or the corrals, or transferred to the custody of another official for disposal. A tablet recording a transfer of this latter kind is shown in Figure 3.

Thus far we have seen examples of texts recording the delivery or transfer of animals, but for each record of this kind there was also a record of expenditure. Figure 4 is the text of an expenditure by a receiving official named Ab-ba-ša₆-ga. It is dated on the twentieth day of the eleventh month of the sixth year of King Amar-Sîn (who reigned between Shulgi and Shu-Sîn). The text reads:

Verso	1 lamb (for) En-lil (a god)
	1 lamb (for) Nin-lil (a goddess)
	Maš-tur, the cup-bearer, *maškim*
	(taken) from the (daily) deliveries
	on the 20th day
Recto	from Ab-ba-ša₆-ga
	was expended.
	Month
	Year
Edge	(total) 2 (lambs)

Maš-tur as *maškim* would be the recipient of the lambs at Nippur.

Expenditures were also summarized at the end of the month. Figure 5 is an "autograph copy" of a large tablet in the British Museum listing in six columns the daily expenditures of Ab-ba-ša₆-ga during the eleventh month of the sixth year of Amar-Sîn. Columns I-IV give the expenditures day by day; columns V-VI show summaries ending with a grand total of 109 animals and the date. The expenditures of the twentieth day may be seen at the bottom of column III, lines 22-27. A comparison of this section with the text of Figure 4 will reveal the identity of the two transactions.

Figure 6 is a photograph of the obverse of a very large account which summarizes day by day, and month by month, the receipt of dead animals at the *é-dub-ba* (warehouse?) for an entire year (Shu-Sîn 6).

In addition to the types of accounting already mentioned, there were also "balanced accounts" in which an official would summarize both his receipts and disbursements for the period of a month, a year, or several years.

From the fact that duplicates of Drehem texts are known to exist and that "Drehem" texts have been found at Adab, Umma and Ur, we may infer that duplicates of receipts were usually made. One copy would be retained at Drehem and the other would go into the records of the place from which the animals had been sent. It is also known that blank tablets were made in molds in advance of the day's business and that there were standard sizes of tablets for the different types of records.

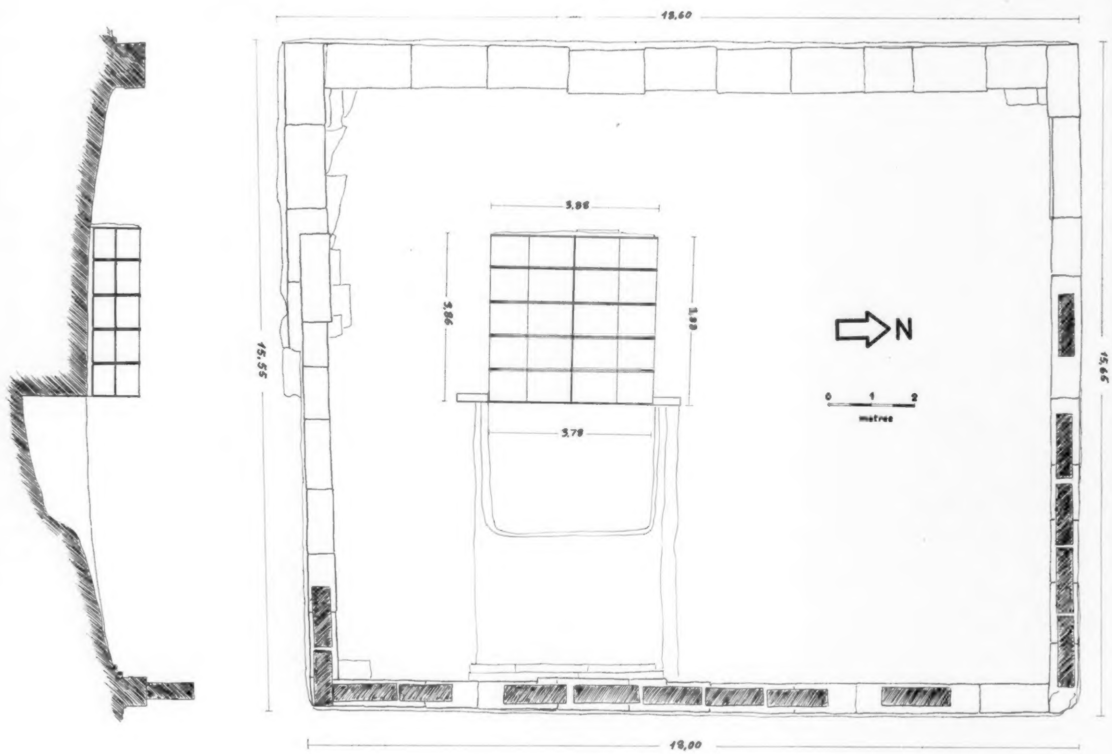
When a record was inscribed on a tablet, the tablet was "filed" in a basket. These baskets were ultimately removed to the archives, where each basket was provided with a clay label attached to the container by a string. The label would be inscribed with a colophon which would summarize the contents of the basket: "Receipts of X for the year Y," etc. Such an archive label is shown in Figure 7.

The careful bookkeeping of the Drehem scribes is typical of the meticulousness with which Sumerian business records were kept. The tablets which deal with agricultural activity or with palace industry are equally detailed. These are rich sources for the economic historian, matched only by the papyri of Graeco-Roman Egypt. To the humble Na-ša₆, Ab-ba-ša₆-ga, and In-ta-è-a of the twenty-first century B.C., the equally humble scholar of the twentieth century A.D. is duly grateful.

7 Clay label used to identify groups of tablets in a Sumerian archive. From C. E. Keiser, *Cuneiform Bullae of the Third Millennium* B.C. (Part III of *Babylonian Records in the Library of J. Pierpont Morgan* [New Haven, 1920] plate 5, no. 39).

By PELLEGRINO CLAUDIO SESTIERI
Director of Antiquities, Paestum

AN UNDERGROUND SHRINE AT PAESTUM



1. Plan and section of the sacred precinct at Paestum enclosing the underground shrine.

• More than a year ago Dr. Sestieri gave us a general account of ancient Poseidonia, a Greek city in central Italy now called Paestum, and of the excavations going on there (ARCHAEOLOGY 7 [1954] 206-213). Since then he has been working steadily at the site and his efforts have been richly rewarded by the discovery of the amazing subterranean shrine he describes for us here. Extraordinarily well preserved and with many unique features, it is one of the most interesting finds of recent years.

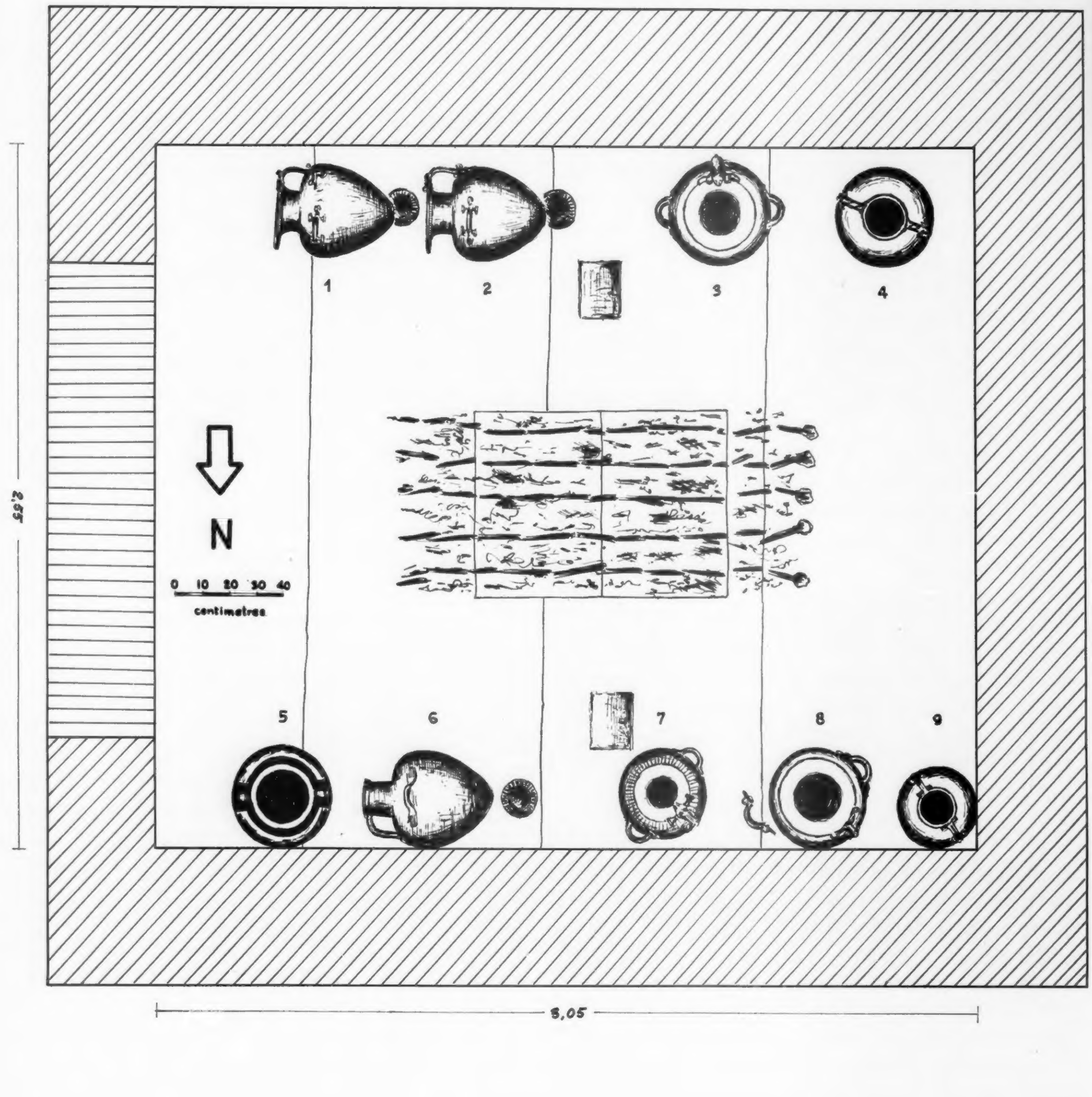
ON THE RIGHT of the ancient road which leads from the forum of Poseidonia to the Temple of Athena (formerly called the Temple of Ceres) was discovered in July 1954 a quadrangular enclosure (Figure 1). This enclosure, 130 meters (143 yards) distant from the temple, is made of squared blocks of local limestone resting on two courses of similar foundation blocks. Upon these stood a row of vertical slabs, of which three were still in place on the north side, while others had fallen nearby. As we dug within the enclosure, there began to appear, near the south and west sides, a gabled roof covered with clay tiles (Figures 2, 3). At first this seemed like the covering of a very large tomb. As we continued to dig, we saw that the roof belonged to a small rectangular building which abutted against the rock on three sides (Figure 4); only on the east side, where the rock had been cut away, could the total height of the wall (2.25 meters, or nearly 8 feet) be seen. This wall is made of limestone blocks in courses. The foundation projects slightly. The three blocks of the top row form a triangle supporting the gable which is made of two slabs resting obliquely against each other. The gabled roof is formed of two rows of limestone slabs, in turn covered with large clay tiles, ten on each side. These were bonded to the slabs with mortar made of clay and ashes. The top of the roof is one meter below the present ground level and ten centimeters below the row of blocks of the enclosure on which the vertical slabs were placed; therefore it was below the ancient ground level.

Excavation has demonstrated that the enclosure was a sacred precinct *(temenos)* and therefore the construction within must have been sacred in character. This is evident also from the fact that the building had no opening and the interior consequently was inaccessible. Since all the roof blocks and tiles were broken we were able to remove some of these and penetrate inside. The interior proved to be a rectangular room with a plinth around the base of the four walls; this is repeated above on the two long sides and on the short west side, where it follows the lines of the gable. The floor is composed of four limestone blocks.

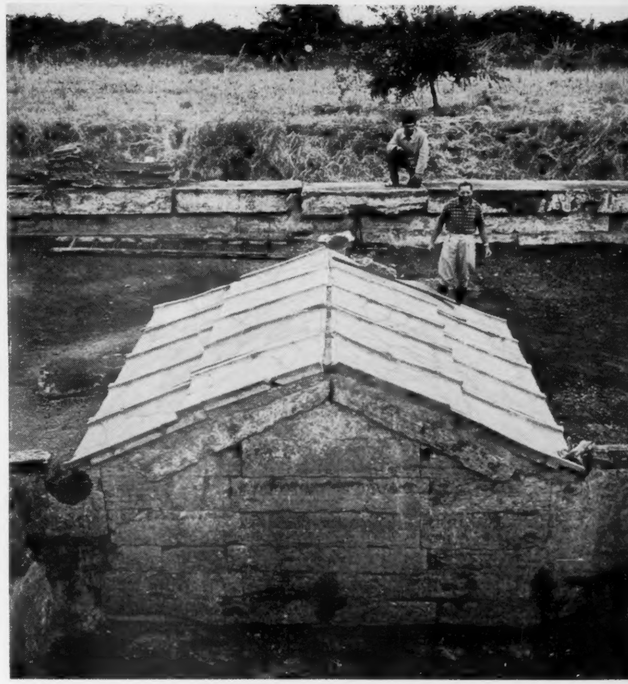
The first thing which one notices is that the whole of the interior, walls and roof slabs, is covered with a thin layer of white plaster. The only exception is the middle blocks of the eastern side, and it is clear that here an opening was left for depositing offerings before the building was finally closed. From outside one can see, beside each of the central blocks, depressions which must have served for the points of crowbars used to fit the blocks in place. The roof slabs were supported by two longitudinal wooden beams. The positions of these beams are indicated by unplastered strips of ceiling each 21 centimeters wide and, on the end walls, by holes into which they fitted. Evidently the beams were also plastered. But these were not the only roof supports; at the middle of each beam stood a vertical post; on the pavement are depressions in which these rested. Between these depressions, in the center of the floor, is a kind of bench made of two pairs of blocks, one pair on top of the other. The bench is 54 cm. high, 68 cm. wide and 92 cm. long. Upon this were fragments of five iron rods, their ends fallen on the ground. Beneath some of these fragments were still attached remains of thin wooden tablets, and on top of them bits of an iron net (Figure 5) made of interlaced strips (rather like that found on the bed in the Regolini-Galassi tomb at Cerveteri). Upon this net was preserved a small portion of a very thick cloth (Figure 6) which, because of salts and rust, appears to be made of metal, but woolen fibers can be recognized in it. We have, therefore, a bed with a woolen coverlet.

This assemblage, with the bed in the middle, the white plastered walls and ceiling, and particularly the gabled roof, reminds us of gabled tombs at Paestum. The resemblance to a tomb became more evident because of

2. Plan of the interior of the underground shrine as it appeared when it was discovered.



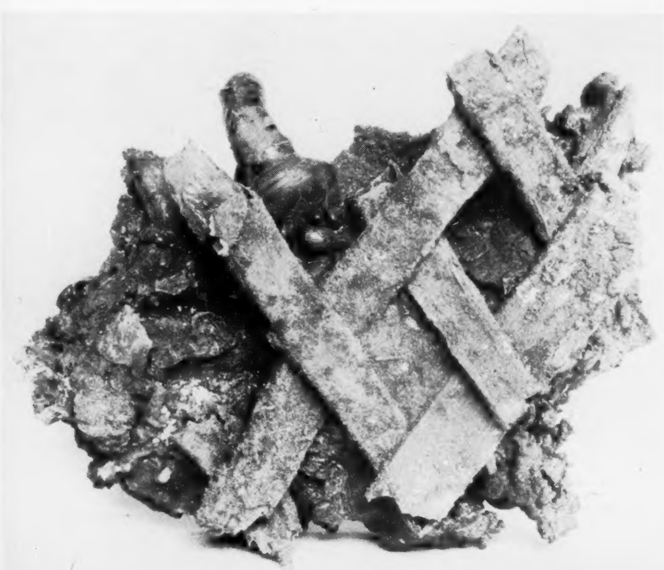
3. The precinct wall and the tiled roof of the underground shrine, during excavation. In the background is the Temple of Athena.



4. The shrine, front view, with the precinct wall behind. The author stands immediately behind the building.

PAESTUM *continued*

5. A fragment of the iron bed-net found in the shrine.



6. Remains of the woolen textile found on the bed-net.

the nature and placement of the objects deposited in the room. Along the north and south walls stood eight bronze vases—four on each side—two amphoras and six hydrias (Figure 7). In the northeast corner was a huge Attic black-figured amphora. This vase was empty, but the bronze vases were found to contain yellow honey, still soft and smelling strongly of wax. They had been sealed with corks. One of these—a simple disk, now blackened—is entirely preserved.

Let us now examine the eight bronze vases. We can divide them, according to form and style, into three groups, the first including two fairly similar hydrias, the second, three nearly identical hydrias, and the third, one hydria and the two amphoras.

THE FIRST GROUP: These two hydrias, although a little different in form—the first, less rigid and a little bigger in the body, is of a slightly more ancient type—are of substantially the same style and are certainly contemporary. The rounded and decorated shoulder of the first hydria (Figures 8-10) joins the body in an elegant curve. The most interesting elements are the handles. The vertical one is a band with rows of beading, ending at the bottom in a palmette with volutes between two sphinxes whose wings curve inward. At the top of the handle, between two roundels, is a very fine lion's head facing toward the inside of the vase. The mane, which is parted into four sections, is treated with particular care; on each pointed lock the hairs are subtly incised. The same treatment appears on the handles of the great krater found at Vix, in France. The horizontal handles end on each side in a double lion protome. The front paws reach outward in front of the muzzles. The open mouths, as well as the deep incisions around the mouths and the indications of muscles on the paws, give these protomes a particularly Oriental character.

The form of the second hydria (Figures 11, 12) is a little more rigid, the ornaments on lip and base are

7. Five of the eight bronze vases found in the shrine.

8. Bronze hydria of Group I, height 45 cm. Note the delicate incised decoration on the shoulder, the elaborate repoussé ornament on the rim, and the two rows of tongue pattern on the base.

PAESTUM *continued*

9. Detail of the hydria in Figure 8, showing the palmettes which are lightly incised on the ends of the roundels which terminate the handles.

10. Detail of the hydria in Figure 8, showing one of the horizontal handles with median ridge of bead and reel, ending in a double lion protome.

simpler. The vertical handle is a superb piece of sculpture: a lion, erect on his hind legs, rests his front paws and muzzle on the rim of the vase as if wishing to quench his thirst with the liquid it contained. The taut body is masterfully rendered, with elegant limbs and spare flanks. Nevertheless, the powerful muscular mass of the haunches, the hind legs and the strong paws is emphasized. The mane, although lacking incised details, is well rendered. The lion's hind feet rest on a palmette, to whose volutes are fastened two serpents; two more serpents with flat triangular heads and long dragon beards emerge from under the forepaws. The horizontal handles are similar to those of the first hydria, but end in two pairs of equine protomes, with their front legs bent. The manes are rather long, with a tuft falling forward between the ears and eyes. Similar treatment is found on the krater of Vix and also on bronze figures from South Italy, like the tripod of Metapontum and the horseman of Grumentum, which are attributed to Tarentine art.

THE SECOND GROUP (Figure 13) includes three hydrias which, although presenting slight differences in detail, can be considered identical. Their form resembles that of the second hydria of Group I but with the shoulder slightly more rigid. The decoration on handles, rim and base is very elaborate. The vertical handles end below in a woman's head which seems to rise from the volutes of a palmette. On each side is the figure of a ram; at the top of the handles are two young lions. The female head is very delicate and accurate in detail. The rams, too, are striking because of the delicate workmanship. No less care is given the figures of the lions, which are particularly remarkable because of the perfect rendering of details. Their elegant manes, with locks defined by subtle incisions, form a kind of collar and hang down the back like a cloak. The horizontal handles, with a median band of bead and reel, have roundels with incised palmettes, like those on the first hydria of Group I. The handles end in palmettes on each of which is the head of a bird with a long beak, probably a water bird.

To these three vases we can compare examples from South Italy, especially the hydria of Sala Consilina, which is identical in form, in accessory ornament and in the handle decoration; in this example, however, the lions are less finely worked. Very similar, too, is the hydria of Randazzo, in Sicily, which has the handle in the form of a youth bending backward, resting his feet on a palmette and his hands on the rim. This vase also has two rams below and two lions above. Jugs with handles bearing the same animals and a palmette, but without the female head, have been found in Campania, but these are provincial, probably imitations of prototypes from Magna Graecia. The vertical handle with a female bust is derived typologically from Laconian hydrias; the most famous example, dating from the early sixth century B.C., is in a private collection at Darmstadt, Germany. The handles of this vase are simple: at the bottom of the vertical one there is only a female head. On the Paestum hydrias, as on those of Sala Consilina and Randazzo, the new element is the horizontal placement of the animal figures above and below. This is the only feature which remains in the provincial Campanian vases.

THE THIRD GROUP, consisting of one hydria and two amphoras, is clearly different from the other two. The hydria (Figures 14, 15) has an oval body and a flat, slightly oblique shoulder. On the narrow lip is a band of beads separated by bars, and below is an incised band; the rather high base has a series of incised lines which were intended as a simplified tongue pattern. The vertical handle has a median band of bead and reel; the palmette at the bottom has volutes ending in serpent heads. Above are two lion protomes, rather sketchily rendered. On the upper part of the handle is incised a palmette. The whole ensemble is schematic and rather rough in quality. The horizontal handles are also decorated with a median band of bead and reel; the attachments are in the form of two hands, not very finely worked. The first amphora (Figure 16) has the same form as the hydria and the same decoration on rim, neck and base. It differs only in the handles. These are crossed obliquely by four cords in relief. The attachment at the top is in the form of two volutes almost touching; at the bottom is a palmette with volutes ending in two flat serpent heads, rather like those of the hydria. The small amphora (Figure 17) is more elegant and harmonious in form than the two vases just described. The foot is rather high and decorated with concave tongues; the lip, as in the other vases of this group, barely projects from the neck. The handles have a ridge in the middle and slightly raised borders; the lower attachment is a flat palmette lightly incised. Above, each handle terminates in two little closed hands which have a space

11. Two views of another bronze hydria of Group I, height 41.3 cm., with a handle in the shape of a lion. Note how the serpents beside the lion, above and below, constitute horizontal elements which contrast sharply with the verticality of the lion's body.

12. Detail of the hydria in Figure 11.

13. Bronze hydria of Group II, with figures of lions and rams. The hydrias of this group, all practically identical, measure 42 cm., 42.5 cm. and 44 cm. The incidental decoration consists of large dots in relief, above darts, on the rim, and of concave tongues on the base. On the woman's head note the hair, which has lightly incised waves on the forehead and four pointed tresses in front. The rams have both front and hind legs bent under their bodies and their muzzles turned outward.

left between the fingers and palm, probably for a cord, so as to enable one to hold the vase with one hand.

The bronze vases found in the shrine constitute an imposing group. The first five are homogeneous and present characteristics common to many products coming from South Italy or from Sicily (Randazzo). The question of their origin deserves more study but at present it seems logical to assume that the five hydrias of Groups I and II were made in a colony of Magna Graecia. The vases of the third group, less fine but with handles showing imitative elements, were probably made at Poseidonia itself, and almost certainly in a single workshop. Chronologically, the whole group can be assigned to the period between 530 and 510 B.C.

This dating is confirmed by the presence in the shrine of an Attic black-figured amphora (Figure 18), perfectly intact. This superb example of Archaic Attic vase painting shows on one side the introduction of Herakles to Olympos: the hero carries his club but he wears a chiton and himation instead of the traditional lion's skin. He has already taken his place on a chariot. Behind him Athena, wearing a high-crested helmet, is preparing to act as charioteer. Beside the chariot stand Apollo and Hermes, the latter distinguished by the *petasos* and *caduceus*. In front of the horses is Artemis; she is identified only by a little fawn with very long ears. On the

14. Bronze hydria of Group III, height 50 cm.

15. Detail showing one of the horizontal handles of the hydria in Figure 14.

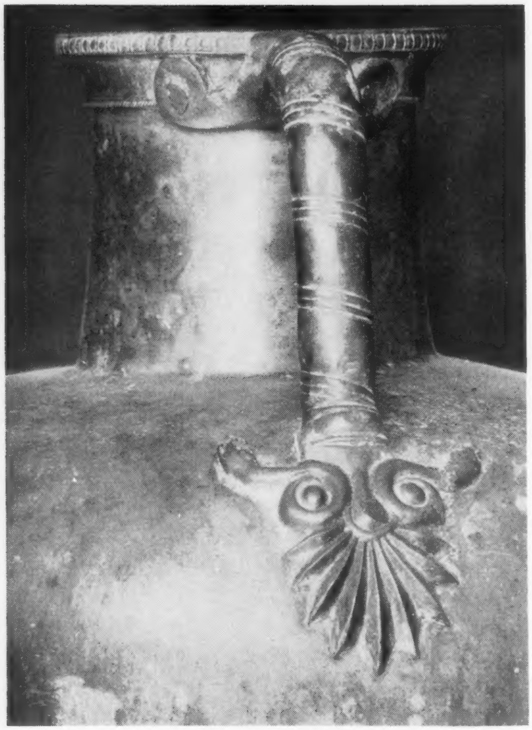
other side of the vase are Dionysos and Hermes, the former crowned with vine leaves and carrying a drinking horn and two long branches. Hermes has a pointed cap but no *caduceus*. Between the two gods is a splendid figure of a long-horned goat. Behind each god are a satyr and a maenad in lively dance. The freshness of the scene, its rhythm and harmony, make it artistically the main side of the vase, whereas the other side is more important in content. But on both the design is equally excellent and clearly the work of the same artist. He combines with delicacy of line the use of polychromy (white and violet) and of incision to indicate details and ornaments. His style, influenced by the work of Exekias, is very close to that of Andokides. It is quite possible that the vase was selected for an offering in this sanctuary because of its two subjects: the apotheosis of Herakles, with the suggestion of resurrection; and the *thiasos*, which symbolizes the beatitude of the Elysian fields. This is apparently the reason for the presence of the figure of Hermes, who here appears in the character of *psychopompos*, guide of souls.

WE EXCAVATED the ground around the building down to bed rock; in it were many fragments of Archaic pottery—Attic, Ionic and some Corinthian. On some of the black-glazed cup fragments and on others of Ionic style decorated with stripes is incised the Greek letter M; on an amphoriskos (small amphora), Ionic in style but locally made, is incised the following inscription in Archaic Greek characters:

"I am sacred to the Nymph."

The building was clearly sacred, and because of its resemblance to a tomb must be considered as an underground shrine. The vases contained in it have a feminine character; they are like those which women used for drawing water, and at Paestum such vases are found only in women's graves. Naturally an underground sanctuary could be dedicated only to a divinity of the underworld. The presence of the bed and the absence of an image signify that in the shrine, invisible and inaccessible to human beings, the divinity was considered as actually present. The honey in the bronze vases symbolizes immortality and recalls ambrosia, the food of the gods. Honey was offered to rustic divinities as well as to subterranean gods. According to the ancient Greek mystery religions a divinity of the dead was protector of fertility and fecundity as well; these religions were basically agrarian. The divinity dies to rise again, symbolizing nature's yearly cycle: six months of the year Persephone is in Hades and six months on earth. In-

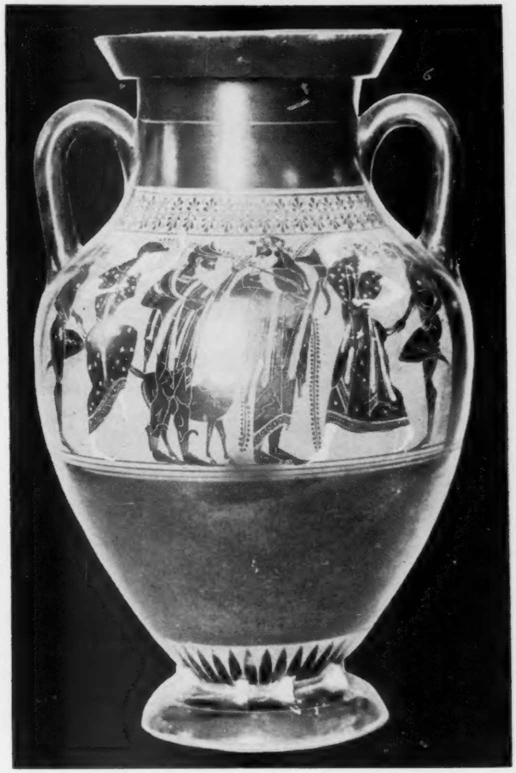
scriptions incised on pottery fragments found within the *temenos* help to identify the divinity of the shrine. The M is frequently found; elsewhere it occurs on a little vase from the deposit in the so-called Basilica, now identified as a temple of Hera, the mother goddess *par excellence,* the divine wife who presided over deaths and births. To her was sacred the pomegranate, symbol of fecundity and resurrection, and terracotta statuettes in her image are found in many tombs at Paestum. Her agrarian character is also clear from figurines found both at Poseidonia and at the sanctuary of Foce Sele, which show a nude female bust rising from a tuft of leaves—a clear representation of fertility. On top of the figure is a lily, also a symbol of fertility, which was used for incense. The M probably stands for MHTHP (mother), since Hera was the mother goddess. And because she was the divine wife it is likely that the dedication to the

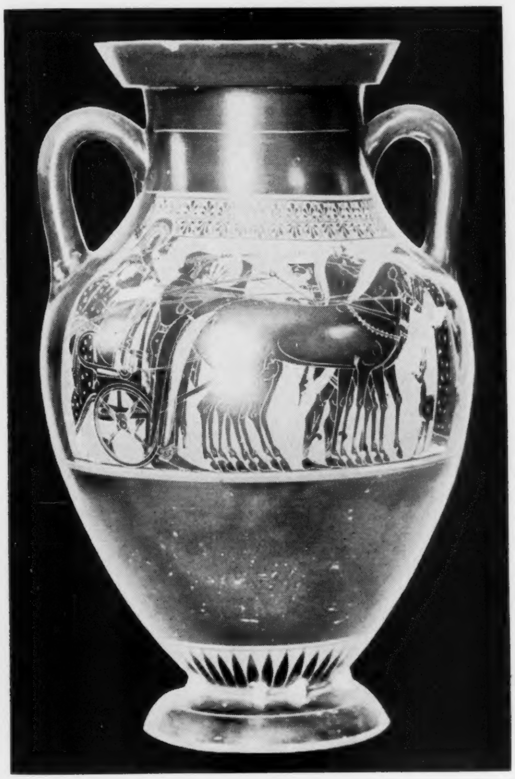


16. Detail of the amphora, height 49.6 cm., of the same shape and style as the hydria in Figure 14.

17. The small bronze amphora, height 36.7 cm., of Group III.

nymph, mentioned above, does not refer to a nymph in general but to *the* Nymph in the original meaning of the word—that is, to the Bride, Hera, Bride and Mother, Goddess of the dead and of fertility, who assures the faithful of resurrection to eternal life. The subterranean shrine is perfectly suited to such a concept of the divinity. Completely concealed from human sight, it could be considered as the sacred heart of the city, the most holy spot in the sanctuary of the powerful and most ancient goddess. The bed may have symbolized the Ἱερος Γάμος, the sacred marriage celebrated in the underworld between Hades and Persephone. Here the goddess Hera, in one of her aspects, served as a substitute. The resemblance of the shrine to a tomb is explained by the identification of Hera with Persephone as goddess of the dead, a function shared with the indigenous divinity who had been worshiped before the incoming Greeks substituted Hera.

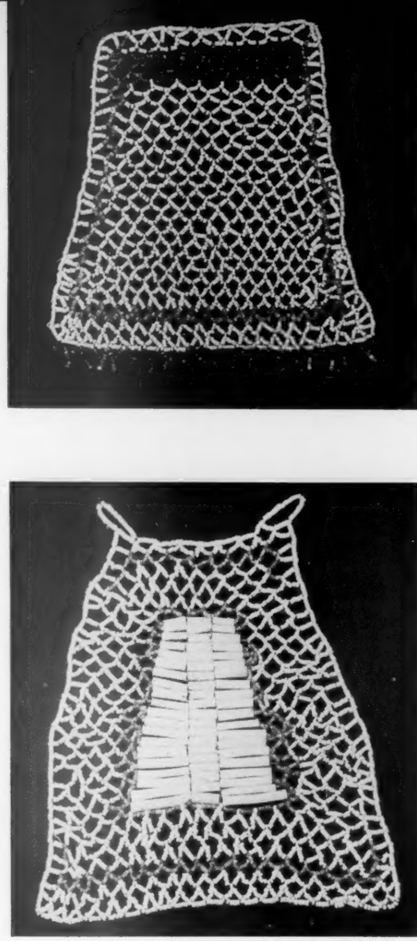




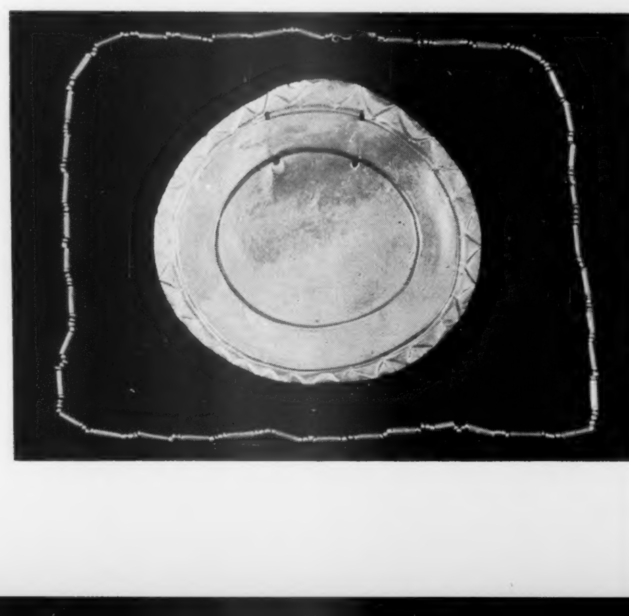
18. The black-figured Attic amphora found in the shrine. On the side shown at the left is the introduction of Herakles to Olympos; above is a group with Dionysos and Hermes.

JEWELRY FROM THE PANAMA CANAL ZONE

BY SAMUEL K. LOTHROP
The Peabody Museum of Harvard University



1. Gorgets made of shell beads and bird bones. Venado Beach, Canal Zone. Height of gorget at left, 13 inches.



2. Gold disks. Venado Beach, Canal Zone. Diameters 4½, 7, 6½ inches; weights 11, 48, 50 grams. The center specimen is now in the Bliss Collection.

WHERE THE PANAMA CANAL emerges on the Pacific, the western shore runs south for a short distance and then swings gradually until it extends westward for a couple of miles to the frontier of the Republic of Panama. This slightly undulating shore line is known as Venado Beach. Behind it is a flat valley, today used as a target area by troops stationed at Fort Kobbe. By water it is only about ten miles from the old city of Panama destroyed by Morgan the buccaneer.

A few years ago an aboriginal settlement fronting on Venado Beach was brought to light by a bulldozer. Ancient remains consisted of refuse beds—mostly removed to enrich the lawns of the Fifteenth Naval District—and burials by the hundreds. A great deal of unrecorded digging by soldiers from Fort Kobbe followed. Then a local archaeological society was formed which kept a photographic record of the more spectacular finds and, in one case, a set of field notes. In the winter of 1951, the Peabody Museum of Harvard University conducted systematic excavations for several months.

The Harvard collection is now being prepared for publication, which probably will not be ready for some time. The objects here described were found in adjacent graves during August, 1951, after our digging had ended. The excavators were Mr. and Mrs. Neville A. Harte and Lt. Colonel Lee E. Montgomery. We are able to describe this unusual jewelry through their kindness in sending data and photographs.

One of the graves contained the body of a child about three years old, loosely flexed on his left side, at a depth of eight feet. Originally the depth had been several feet more, but most of the rich black top soil had been removed by the bulldozer. Below the present surface a foot more of this black soil was found mixed with shells; the next two feet were of red sand containing refuse sherds. Then came three feet of red clay on top of which rested four capped urns, each about twenty inches in diameter, containing traces of food, also five bowls approximately eleven inches in diameter. Below the red clay was a one-foot band of yellow clay. The body lay in a shallow trough cut in hard white *coquina.*

Near the feet of the child an urn nineteen inches in diameter was uncovered which contained more food: shellfish, animal bones and a gray powder. Behind the hips

were the two superimposed gorgets seen in Figure 1, below. The smaller one on top is made from the leg or wing bones of gulls. The other is of orange and white shell beads. We also illustrate (Figure 1, above) another gorget, from a different grave, with purple fringe, a purple band on the top and an orange band at the base. The beads had been strung on strands of human hair. The Hartes carefully restrung them *in situ,* a feat of which they should be proud. Comparable bead gorgets, worn high on the chest, are still used by the San Blas Indians on the Atlantic coast of the Isthmus. The Guaymí Indians of western Panama also still wear bead gorgets but of a different shape. On the child's chest there were three gold plaques (Figure 2), each pierced by two pairs of holes. This suggests that they were sewn on the clothing rather than suspended from the neck. The one on the right is undecorated except for a raised rim. Another (extreme left) has an embossed circle surrounded by a zigzag motif which probably symbolizes crocodile scales.

The third plaque (Figure 2, center) is adorned in a style well known in the Province of Coclé, Panama. Decoration typically consists of grotesque human and animal forms or an infinite variety of scroll patterns which seem to be symbolic rather than abstract in concept. This Venado Beach specimen probably is a trade piece, for it recalls the embossed gold breastplates found at the Sitio Conte about one hundred miles to the west. The subject portrayed is a composite anthropomorphic monster. The head, shaped like a barbed arrow point, is of a form associated with serpents and sometimes turtles on Coclé polychrome pottery, but in Coclé the mouth normally would be placed above the eyes, and the two curling streamers should be twin tongues (Figure 3). There is no body below the neck and shoulders, but the arms and legs are human except that the fingers and big toes are replaced by crocodile claws.

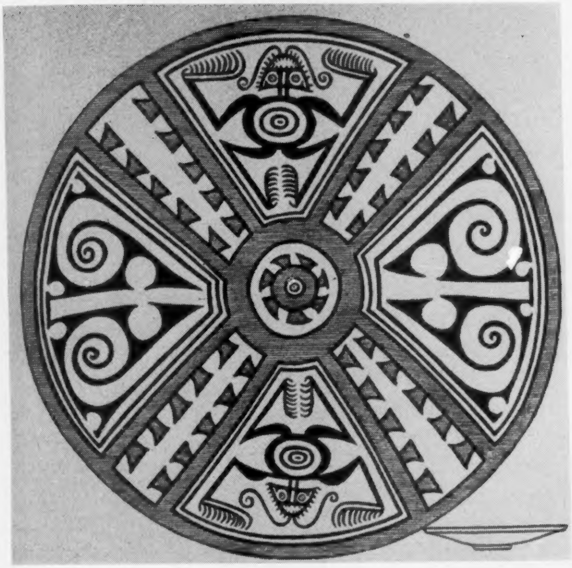
Flanking the knees of the child in the grave was a pair of small animals with curling tails, fat bellies and long snouts. Somewhat similar gold figures from Sitio Conte were thought to represent crocodiles. On the basis of the more detailed specimen in Figure 4, however, it is now possible to identify them as sea horses, an art motif we had not previously encountered in the New World. The sea horses are linked by a band fringed with symbolic crocodile scales. This presumably is a belt. On Coclé anthropomorphic figures, when the body is depicted, similar belts are shown with flaring ends which are attached to small animal figures, usually crocodiles. In this case, as there is no body represented, the belt motif appears as an independent unit so introduced that it balances the design as a whole.

In the art of Coclé, especially in pottery and hammered gold, there is a wealth of forgotten symbolism which we can only call monstrous because it is based on combinations of brute forms which never appear in nature. Among these are snakes with two legs, birds with saurian claws, men with crocodile heads, etc. Similar compound concepts in many guises are found all over the world but in Coclé art, apart from complex geometric designs, there is rarely any other expression of beauty or religious belief.

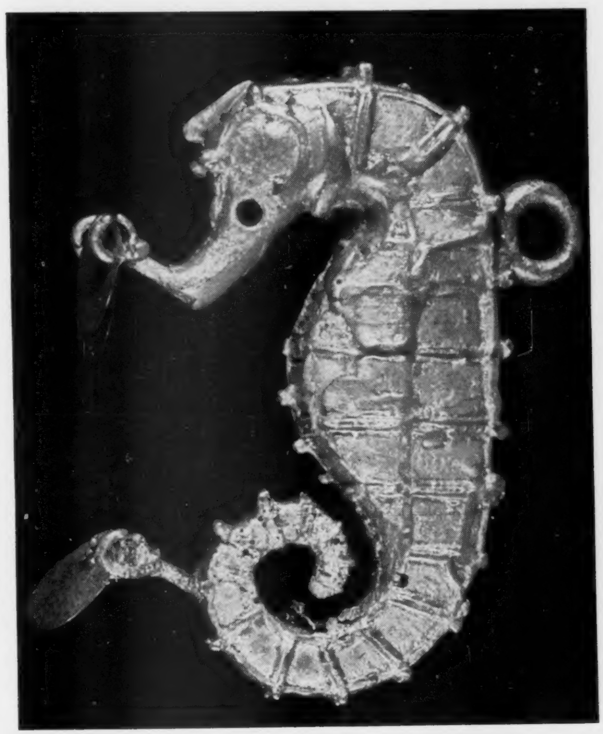
On the child's forehead, in the grave we are discussing, was found the extraordinary object shown in Figure 5. It has a loop for suspension but, from the position in which it was discovered, it seems that it was sewn to a head band. Again we are dealing with a composite figure with both human and animal attributes. At the top there is a human head attached to human shoulders and arms. Each hand holds a short bar with two gold danglers. The body, which rather suggests a well fed snake, terminates in a bird's head with two small wings and projecting eyes like a crab's. This piece at first glance seems to have been built up by soldering wires together. Actually, it was modeled in wax over a clay core and—except for the danglers—cast in a single flow of metal. At the back there is a rectangular slot through which the core was extracted. Microscopic examination of sections of comparable pieces reveals the continuous grain structure.

In an adjacent grave Lt. Col. Lee E. Montgomery found two comparable specimens, both representing frogs. The example in Figure 6 is no less intricate in design than the piece just considered, but the casting was less successful. Perhaps the wax model had partly melted,

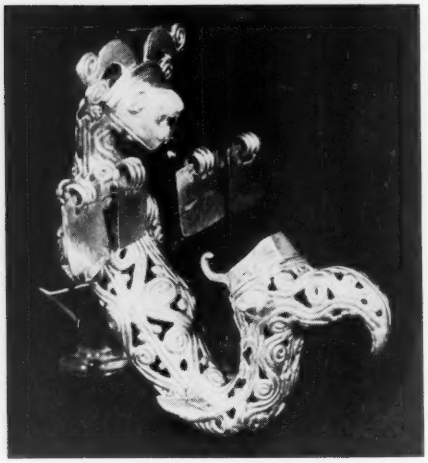
FIGURES 1, 2 AND 5 BY NEVILLE A. HARTE;
FIGURE 4 BY HARRY DUNN;
FIGURES 6 AND 7 BY LT. COL. LEE E MONTGOMERY



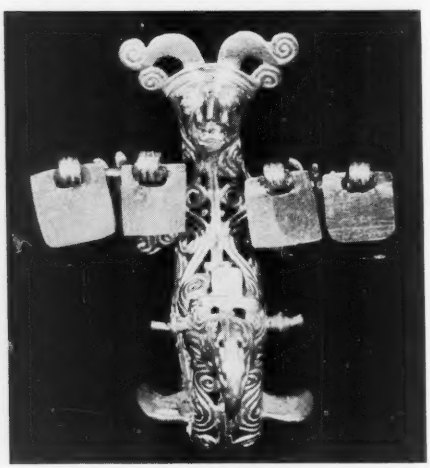
3. Pottery plate showing the turtle motif. From Sitio Conte, Province of Coclé, Panama. Diameter about 14 inches. Peabody Museum, Harvard University.



4. Gold pendant representing a sea horse. Venado Beach, Canal Zone. About actual size.



5. Gold pendant. Venado Beach, Canal Zone. Height 3 inches. This object is now in the Bliss Collection.



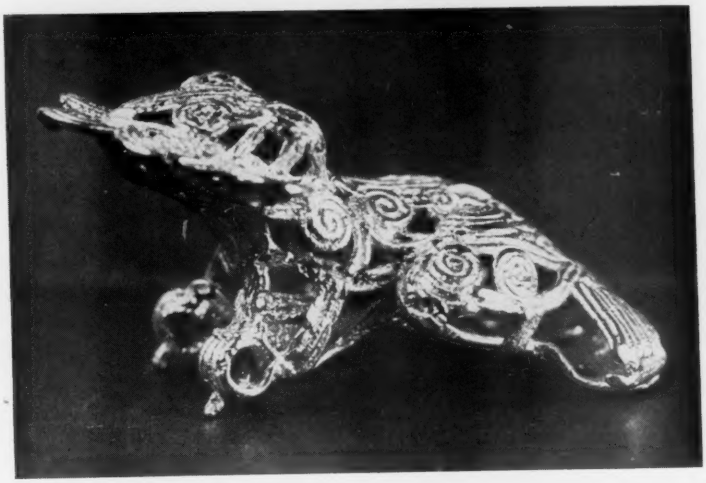
or the metal was not under enough pressure to make a clean cast. In the side view in Figure 6, however, it can be seen that each of the two loops for suspension has a small projection. These must represent the channels through which the metal was poured. Their presence is unusual in the Isthmus and suggests that this may be an unfinished specimen. Mexican copper bells also were cast by ducts leading through the rings to the body of the bell, but traces of the casting channels frequently were not removed.

The second frog (Figure 7) exhibits modeling and casting of the highest quality. Over sixty spirals are incorporated in the design. A view of the base shows the slot through which the inner core of the mold could be extracted.

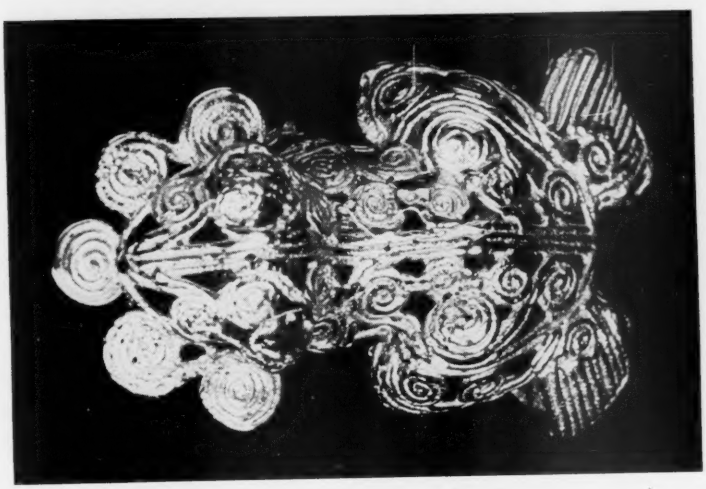
These three filigree-like specimens may well be the product of one unusually skilled goldsmith, but it seems improbable that they were manufactured locally, or more of them would have been found. Certain characteristics, such as the rings for suspension, protruding eyes, spirals in front of the mouth, suggest that they are trade pieces from the Province of Veraguas.

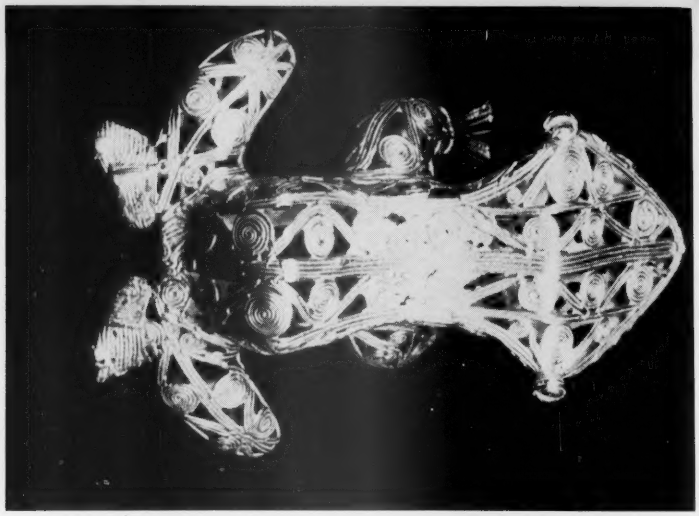
To conceive and model such ornaments calls for inventive genius and craftsmanship, but so to design them that the metal would flow throughout the tiny channels of the mold represents great technical ability. Dr. Emil Haury recently told me that copies of the very delicate Mixtec jewelry of Mexico are now being produced by a process available to aboriginal peoples. This consists of making a wax model and a mold with a chamber for the metal above the wax. This is embedded in charcoal which is ignited. The whole contrivance is then swung around the craftsman's head on the end of a rope. As a result, the heat of the flame is increased and the molten metal is driven into the mold by centrifugal force while the wax is vaporized.

Had the inhabitants of the Isthmus possessed any such spectacular device, we would expect the Spaniards to have noted and described it. As a matter of fact, however, we have no descriptions of metal working in this region, but it is obvious that such fine castings as we illustrate could have been made only with thoroughly liquefied metal. Yet little more than a hundred miles west of the Province of Veraguas, the natives of Boruca were unable to produce enough heat to smelt either gold or copper separately, but they had learned to powder and combine them in the alloy known as *tumbaga,* which has a far lower melting point than either of its ingredients. Within a small area, then, there is evidence of much diversity in skills among peoples who shared the same technical processes.



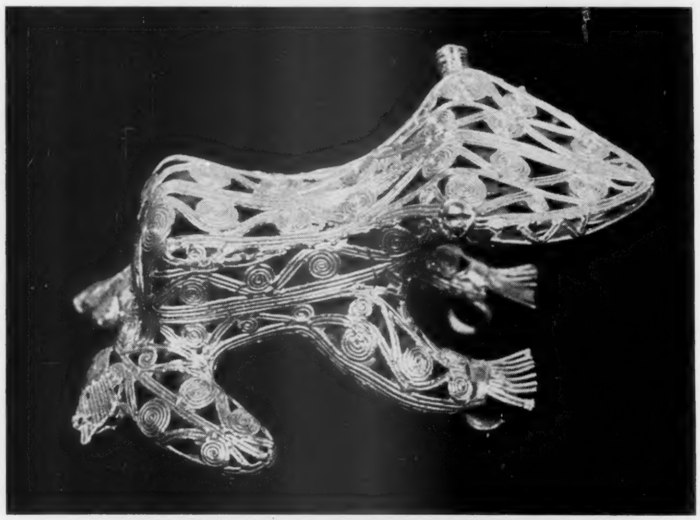
6. Gold pendant representing a frog. Venado Beach, Canal Zone. About actual size.

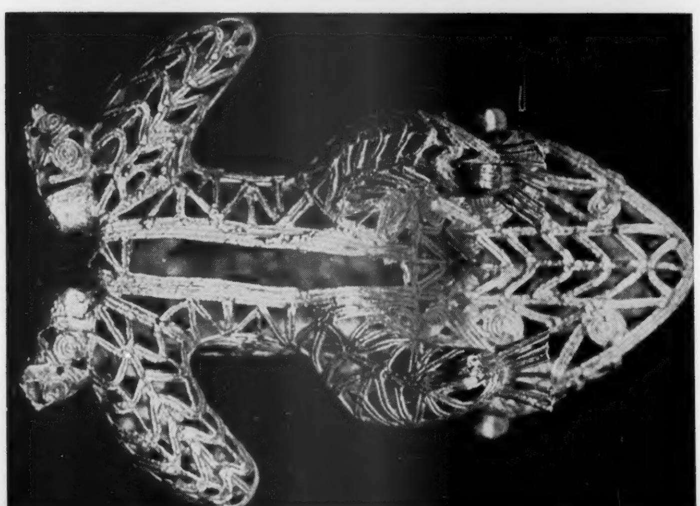




JEWELRY FROM THE PANAMA CANAL ZONE continued

7. A second gold pendant representing a frog. Venado Beach, Canal Zone. About actual size.





THE SCROLLS FROM THE JUDAEAN DESERT

By FRANK M. CROSS, JR.

IN APRIL 1948 came the first electrifying announcements of the discovery of ancient manuscripts in Palestine. The first statement, from the American School of Oriental Research in Jerusalem, described pre-Christian manuscripts: a great scroll of Isaiah, a commentary on Habakkuk, and a sectarian "Manual of Discipline," all in the possession of the Syrian monastery of St. Mark in old Jerusalem. A second announcement, that scrolls of similar date from the wilderness near the Dead Sea had been bought by the Hebrew University in Jerusalem, followed almost immediately. In the latter group were a sectarian hymn book, a fragmentary exemplar of Isaiah and a document called the "War Between the Children of Light and Darkness."

Earlier, Professor W. F. Albright, who is *facile princeps* in matters of early Jewish palaeography, had been sent photographs from the great Isaiah scroll. In a letter to Dr. John Trever, a fellow of the American School, he wrote: "My heartiest congratulations on the greatest manuscript discovery of modern times. . . . I should prefer a date around 100 B.C. . . . and there can happily not be the slightest doubt in the world about the genuineness of the manuscript." Professor E. Sukenik, the principal in the purchase and study of the Israelis' part of the find, reached like conclusions as to the date and significance of the scrolls in his possession.

Since these early announcements have come repeated press releases of new discoveries. The newest find has been announced only this year: the recovery of a great scroll of the Minor Prophets from the southern Judaean wilderness in the region of Wadi Murabba'at.

I

The full story of the initial finds has not yet been published, though it is now clear in essential details. In the spring of 1947 two Bedouins were tending their flocks on the crumbling cliffs that border the northwest shore of the Dead Sea in the region of Wadi Qumran. One of their animals strayed. In the search for it, a shepherd, Muhammad edh-Dhib by name, tossed a stone into an opening in the rock. Instead of the expected smack of rock against rock he heard a crash and a sound of shattering. Later, when the fear of *jinn* or hyenas finally gave way to the lure of buried gold, the shepherds crept into

• The author is a member of the international staff publishing the later finds of Dead Sea Scrolls. A native of California, he was educated at Maryville College, Tennessee (B.A. 1942), McCormick Theological Seminary, Chicago (B.D. 1946) and the Johns Hopkins University (Ph.D. 1950). Now Associate Professor of Old Testament at McCormick Theological Seminary, Dr. Cross has also served as Annual Professor at the American School of Oriental Research in Jerusalem (1953-54) and in 1955 took part in exploration in the Buqei'ah of the Judaean wilderness. Dr. Cross' special interests are epigraphy and palaeography. He is the author (with David N. Freedman) of *Early Hebrew Orthography* and has written many articles in scholarly journals.

Khirbet Qumran looking east from the cliffs bordering the Dead Sea. (Photograph courtesy of J. Starcky)

the cave and found decayed rolls of leather in strange elongated jars. These were the fabulous Dead Sea manuscripts of what is now labeled Qumran Cave One.

In the year between the Bedouins' discovery and the first press releases there was confusion, blundering and intrigue such as is often associated with spectacular chance finds. After having been passed about in the tents of tribesmen, the tattered rolls came into the hands of a Syrian shoemaker of Bethlehem. Through his mediation these scrolls as well as later finds were offered for sale and ultimately came to the attention of Western scholars.

It was not until early in 1949 that Mr. Lankester Harding, Director of Antiquities in Jordan, and Père R. de Vaux of the École Biblique et Archéologique Française in Jerusalem were able to make scientific excavations in the cave. In the meanwhile Syrians had made at least one clandestine dig and perhaps more. Nevertheless, pottery finds were sufficient to date the deposit roughly, to confirm palaeographic data and to tie the various purchased lots to the Qumran cave. The fragments found in this excavation are now published in the first of a series of volumes to be issued by the Oxford University Press, entitled *Discoveries in the Judaean Desert*. In the meanwhile, the principal editions of the Syrian lot and of that belonging to the Hebrew University have appeared.

The discovery and excavation of Qumran Cave One was merely the first and most exciting of a series of cave finds and related discoveries. In the region of Qumran alone some ten caves have produced inscribed material, while twenty-five give evidence of late Hellenistic and Roman occupation. Touched off by the Qumran finds, Bedouin, police and archaeologists have ranged over forgotten precincts of the desert of Judah, leading to several series of discoveries of ancient documents unrelated to those of Wadi Qumran. The most important finds were made in the vicinity of Wadi Murabba'at, southwest of Qumran. Here a large corpus of secular and biblical documents has been recovered, belonging mostly to the era between the two Jewish revolts against Rome, between A.D. 70 and A.D. 135.

There is room for only the briefest account of recent discoveries and research in the area of Wadi Qumran. Of the ten "producing" caves, One, Two, Four and Six were discovered by Bedouins between 1947 and 1952; Three, Five, and Seven-Ten were found by archaeologists in the years 1952-1955. Of the last mentioned, Caves Seven-

Ten were found only last year. Cave Three is particularly famous for its copper scrolls, found in the systematic exploration (1952) of the cliffs north and south of Wadi Qumran. These copper scrolls, originally a single document, are together some two and one-half meters long, engraved with a monumental script of the first century A.D. Unfortunately, the rolls are almost completely oxidized; attempts to open and read them are in progress in Manchester, England. In the meanwhile only hints of their contents can be gained from the impressions of letters which show through on the outside of the beaten copper sheet.

After the close of the expedition systematically searching the area around Khirbet Qumran, Bedouins again took the field in the summer of 1952 and discovered Cave Four, the largest of the caches of manuscripts. Archaeologists rushed back to the desert in time to halt clandestine digging before the cave had been completely exhausted. In September 1952 they completed controlled excavations with good results: enough undisturbed fragments were found in the lowest deposits of the cave to insure the provenience of material bought from the Bedouins. Save for the discoveries of Cave One and Cave Four, the remaining caves produced quite minor finds.

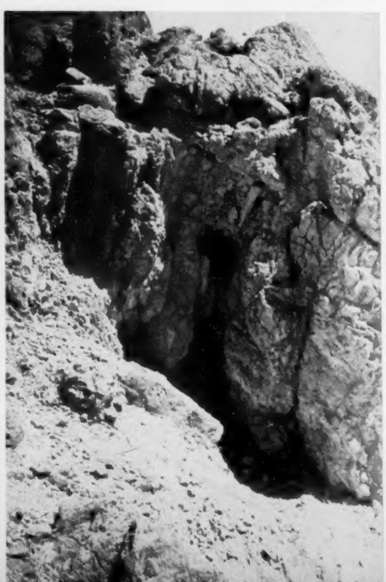
The copper scrolls of Cave Three, Qumran, as they were found. (Photograph courtesy of W. L. Reed)

THE SCROLLS *continued*

The produce of Cave Four represents the remains of some three hundred manuscripts. Unlike the carefully wrapped scrolls of Cave One found sealed in jars, the hoard of Cave Four had to be excavated out of the accumulated deposits in the cave; virtually all the manuscripts, therefore, are extremely fragmentary and in an advanced state of decay.

It is not yet possible to give a complete catalogue of the manuscripts of Cave Four. Tens of thousands of fragments have been recovered and are slowly being pieced together. The process is exceedingly tedious. Some manuscripts are preserved in no more than one or two fragments of encrusted, time-blackened leather. Others contain parts of more than forty columns of text. Their poor state of preservation handicaps attempts to clean and flatten the twisted and shrunken pieces; many can be read only on long-exposed infra-red plates. About one third, approximately ninety manuscripts, are biblical, all of course from the Old Testament. Only Esther is missing, no doubt by chance, from this ancient Jewish library. All other books (reckoning by the Hebrew canon) have been identified in one or more copies. Especially popular are Isaiah, Deuteronomy and Psalms, each represented by ten

Cave One at Qumran.



or more exemplars; it is noteworthy that these books are among those most frequently quoted by New Testament writers.

Another large portion of the documents belongs to the category of apocryphal and pseudepigraphical works: Tobit in Aramaic and Hebrew, Enoch in archaic recensional forms, an early Testament of Levi (not directly related to the Testaments of the Twelve Patriarchs), Jubilees and Ecclesiasticus (from Cave Two). There is another group of sectarian works: the Discipline of the Community, the sectarian hymns, the War Scroll, all known from Cave One, reappear. In addition there are copies of the so-called Zadokite or Damascus Covenant document already partly known from two incomplete mediaeval manuscripts. There are also commentaries on a large number of Old Testament books. One of the most exciting is on Nahum, a well preserved manuscript acquired only last year. Finally there are miscellaneous documents, all wholly unknown previously, together with fragments of the Septuagint, lists of Messianic "proof-texts," and even some Aramaic contracts and name lists. Most of the non-biblical documents, even if known, appear now for the first time in their original Semitic garb.

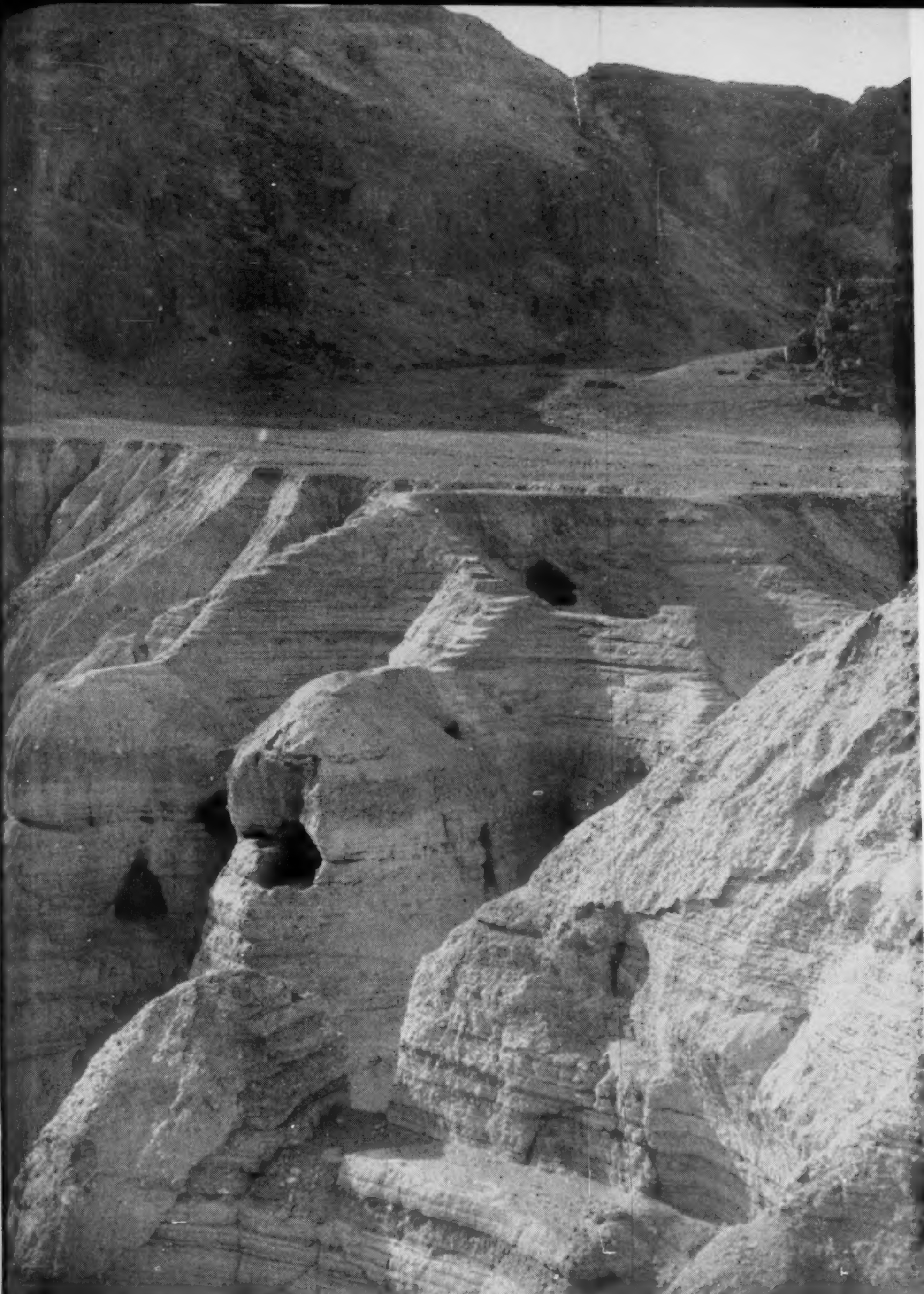
II

In the midst of the cave sites, some two miles south of the northern tip of the Dead Sea, on a marly plateau that huddles under the brow of the great cliffs where Wadi Qumran breaks through to the sea, lies an ancient ruin called Khirbet Qumran. The site has been known since its description by De Saulcy in the mid-nineteenth century. Recent explorers had supposed it to be a small Roman fort; it was remarkable for its cemeteries of more than twelve hundred tombs. With the first discoveries of manuscripts in the area, attention was focused on the ruin, and four excavation campaigns (1951-1955) have been carried on by Père R. de Vaux and Mr. Lankester Harding.

Thanks to a combination of literary evidence, not least that of the adjacent caves, and spectacular archaeological data, the identity of the site as the Essene community center or "city in the wilderness" has been established beyond reasonable doubt. The Essenes were the historian Josephus' "third party" in Judaism in the time of Jesus Christ, an apocalyptic community competing with the more conservative Sadducees and Pharisees for the allegiance of pious Jews.

The first two seasons opened the central building complex of the site. It included a fortified tower, common rooms for study, storage and work, including a scriptorium with a plaster writing table some five meters long, inkpots, benches and basins for ritual washing. It is probable that at least some of the manuscripts in the caves came from this center; the fact that manuscripts from caves both north and south of the site are on occasion written by a single scribe supports this supposition. Early excavations established the general chronology of the Khirbeh. The community was founded in the time of John Hyrcanus I (135-104 B.C.) or at latest Alexander Jannaeus (103-76 B.C.), in the early Hasmonean era. Three main periods of occupation followed: the first continued until the time of Herod the Great (37-4 B.C.) when an earthquake, probably that of 31 B.C. recorded by Josephus, destroyed the Qumran structures. After a gap in occupation during much of Herod's reign, the community reestablished itself, perhaps in the time of Herod Archelaus (4 B.C. to A.D. 6), and prospered until the dark days of the First Jewish Revolt against Rome (A.D. 66-70). The Essene center seems to have been destroyed by the Tenth Legion in the year 68. The site was then transformed into a military fort and occupied by a Roman garrison, no doubt protecting Jericho against Jewish guerrilla action which centered in the wilderness to the south and southwest. This was the final period of construction at Khirbet Qumran. After abandonment as a Roman post, there was a brief occupation by squatters in the days of the Second Jewish Revolt (A.D. 132-135), followed by permanent abandonment.

The most recent seasons at Qumran have not yet had preliminary publication; only general remarks can be made. In 1954 the quarter south of the central complex was opened. A massive and complicated water system was disclosed, with more than ten large cisterns and settling basins connected with an aqueduct from high in the wadi. The cisterns are structurally identical with contemporary Roman cisterns. Although there has been some speculation that these were baptisteries, there is little reason to connect these cisterns with the well known practice of the sect; more probably "living" water was utilized for baptisms. In any case the aridity of the re-



Cave Four at Qumran.

gion requires extensive water-conserving installations if a community of any size is to survive. A large communal eating hall was excavated, and a pantry containing over a thousand pieces of pottery used for the communion meals of the sect.

In 1955 the western quarter was opened; it proved to be a domestic complex. In one room more than five hundred silver coins were found in jars hidden under the floor. The coins are of Tyrian stamp, spanning in date the first century B.C. Further work will continue in another season this year; efforts will be concentrated on structures near 'Ain Feshkha, south of Khirbet Qumran.

III

We have remarked that the people of the scrolls were Essenes, an apocalyptic sect within Judaism. They are known to us from Pliny, who tells us of their community center between Jericho and 'Ain Gedi, from Philo of Alexandria, and especially from Josephus, who seems to have had a flirtation with the sect in his idealistic youth.

Of the three major parties within Judaism, the Pharisees, Sadducees and Essenes, we hear in the New Testament only of the first two. This is extraordinary, since the literature of the Essenes is quoted in the New Testament. It is clear that reworked Essene documents were current in the early Christian community. There is also evidence that the Essene sectaries were a fruitful field of evangelization, that that they in turn had influence on the formation of institutions of the Apostolic and sub-Apostolic Church. In any case, we must suppose that the nonmention of the Essenes in the New Testament arises not from ignorance, but from lack of antipathy; we hear of the other Jewish parties largely in polemical passages.

The Essenes had their origins in the party of the Pious, the Hasidim of the national revival in the Maccabaean era (ca. 175-135 B.C.). As a separatist party, the Essenes appear under the early Hasmoneans. It now appears from new documents, as already maintained by a number of scholars on the basis of older evidence, that the chief creative personality in the sect, one who held the title or office of "Teacher of Righteousness," flourished in the reigns of John Hyrcanus and Alexander Jannaeus. In this time the sect was persecuted, formed cells in many villages of Judah, and developed its chief center in the desert south of Jericho. It may well be that in this period part of the sect retreated from persecution into Syria. Their communal life flourished until the Jewish war against Rome in A.D. 66-70. After this they disappear, leaving only the ruins of their ancient desert retreat and the litterings of manuscripts on the floors of caves.

Khirbet Qumran after four seasons of excavation, viewed from the southeast.

IV

Two aspects of scroll study are especially interesting for students of the Bible. One has to do with the bearing of the new materials on the textual study of the Old Testament. Most of the biblical manuscripts antedate by more than a millennium the traditional Hebrew text which has been the basis of our English Bible. The second is concerned with the significance of the new Essene documents for New Testament studies. No doubt this is the most exciting as well as the most controversial side of scroll researches. We shall deal with each in turn.

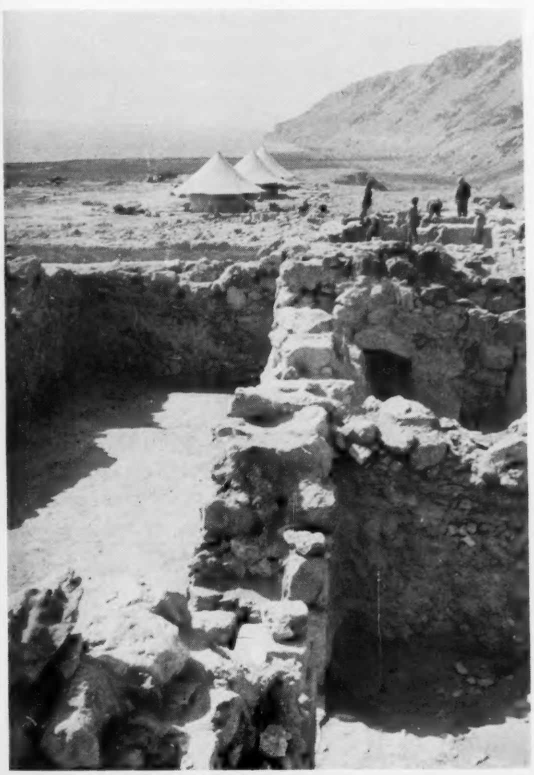
The discovery of a virtually complete manuscript of Isaiah from about 100 B.C. in Cave One caused extraordinary excitement among students of the Old Testament.

THE SCROLLS *continued*

It was not merely the fact that specific readings in the Book of Isaiah could be improved. More important, the great barrier to our knowledge of the archaic Hebrew text was breached—the Rabbinic recension of about A.D. 100 which in effect eliminated all variant texts. The Isaiah scroll was received with some consternation by those who had presumed that the pre-Christian Hebrew text was fluid, and that the traditional (proto-Massoretic) text was formed in the mediaeval period, whereas those who had held that the received text rested on an archaic and stable textual tradition were delighted to find their views confirmed. For the text of Isaiah at Qumran (now represented in ten or twelve scrolls) shows few important variations from the mediaeval text; it contains thousands of variants but few making significant changes in meaning, and even fewer which can be shown to be superior to the Massoretic readings.

From this evidence scholars have generalized that not only in Isaiah, but in the entire Old Testament, the text was stabilized early, and that late recensional activities

The scriptorium of the Essenes at Khirbet Qumran.



A portion of the aqueduct in the western quarter of Khirbet Qumran.

were of only slight effect. This conclusion, of course, powerfully supported textual scholars of conservative persuasion.

There was one difficulty. Evidence already existed that the text of Isaiah, unlike that of other books, was stabilized early or at least the tradition of the later text was in existence before the authoritative traditional text was promulgated, about A.D. 100. This evidence was to be found in the Old Greek translation of the third-second centuries B.C., the so-called Septuagint. The Septuagint translation differs widely in content in many books from the traditional Hebrew text. Some scholars maintained that the Septuagint was translated from Hebrew manuscripts which belonged to a radically different and often superior textual tradition. More recently, scholars had been dealing more conservatively with the Massoretic text, more radically with that of the Septuagint. The vari-

ant renderings of the Greek translators were explained away as due to the ignorance, errors or theological prejudices of the translators. Obviously this is in part true; many such changes do exist. It had become increasingly popular, however, to suppose that the great bulk of the differences was to be so explained. Now it seemed that the Qumran Isaiah bore out this position.

But to return to our difficulty. As it happens, Isaiah in the Old Greek is *not* one of those books where the traditional renderings and those of the Septuagint clash. Isaiah in Greek appeared to have been translated from a manuscript quite close to the proto-Massoretic tradition. However, it was difficult to be certain, since the translation of Isaiah is among the poorest in the Greek Bible. This meant that the Book of Isaiah was a particularly poor ground upon which to test textual theories to be applied to other books, or even to the entire Bible. What was needed, rather, was manuscripts in Hebrew from other books where the Septuagint translation was good, where it was extremely literal when it followed Massoretic readings, but where it frequently branched radically from this later standard text. This was the case, for example, in the historical books, especially Joshua, Samuel and Kings. Ideally, of course, the scholar needed samplings from the whole of the Old Testament in order to reconstruct a valid history of its transmission. For detailed readings in a single manuscript are less important than samples of text types in reconstructing a more nearly original text of the Old Testament, the goal of textual study.

The recovery of remnants of nearly a hundred biblical manuscripts in Cave Four came, therefore, as incredibly good fortune. Here at last was the basis for sampling the textual types extant in virtually every book of the Old Testament. Here was a substantial basis for establishment of the archaic, pre-Massoretic history of the Hebrew text.

The first manuscripts studied were those of Samuel. Two fragmentary columns of so-called 4Q Sam^{a} (Samuel MS No. 1 from Qumran Cave Four) were immediately published. Later, in lots purchased from clandestine Bedouin operations, fragments from nearly every column of this manuscript were identified.

The results were shocking. The text of Samuel contained in the three scrolls from Qumran is widely at variance with that of the traditional Massoretic Bible; it follows most frequently the rendering of the Old Greek of Samuel. There are also many unique readings, some more nearly original than any previously known.

Other historical books follow suit in presenting the tradition of the Septuagint. It now becomes clear, at least in these books, that the Septuagint's divergent text was due far less to "translation idiosyncrasies" than to the archaic form of the text which it translated. For example, in six fragments of the most archaic Samuel manuscript (late third century B.C.), the Septuagint is followed thirteen times when the Greek disagrees with the Massoretic tradition, against four cases when the Qumran text agrees with the Massoretic tradition against the Septuagint: three to one in favor of the Greek tradition. The question of which text is original is another problem, to be decided in individual readings. The point, however, is that while we had previously only one clear line leading back toward the original text, we now have three converging lines: the Massoretic tradition, the Qumran tradition and the Hebrew tradition underlying the Old Greek translation. The latter has always been known, of course, but had become increasingly suspect as a useful witness to the old text; now it is vindicated as faithful in the historical books, and it must be taken seriously in all textual study.

The state of the text in other books is more complicated. In the Pentateuch at least three different textual types are now known to have existed at Qumran. One is nearly identical with the proto-Massoretic tradition; another is closely parallel to the Samaritan Pentateuch; still a third follows the Septuagint version. Many manuscripts are mixed in type.

For the study of the Old Testament text, therefore, the grand Isaiah manuscript did not reflect the real complexity of the textual tradition in the pre-Massoretic, pre-Christian era. New finds should chart new courses by which scholars will progress toward a more accurate, more intelligible Old Testament.

V

It is difficult to exaggerate the importance of the Essene documents for the study of Christian origins. In the early stages of investigation some distortions and premature syntheses were made which now have broken down under the weight of new material, most of it as yet unpublished. Of these the most flamboyant and provocative theories have centered about the rather obscure figure of the "Teacher of Righteousness." For example, the distinguished Semitist of the Sorbonne, A. Dupont-Sommer, has gone so far as to portray him as the prototype of the Christian Messiah, martyred, risen from the dead, incarnate divinity, returning Messiah, redeemer of the world.

Part of his construction is based on or bolstered by the use of Christian editions of Essene documents, especially the Testaments of the Patriarchs. Such procedure is unsound since these editions swarm with Christian interpolations and revisions. Further sifting of new and old data now suggests that the Teacher, while persecuted, was not martyred, and in any case is given no divine prerogatives; as for his being the expected Messiah of the "end time," this problem is enormously complicated by new, conclusive evidence that the Essenes expected two Messiahs, a priestly Messiah of Levi, and a royal Messiah of David, as well as an eschatological Prophet (cf. John 1:2-24). There is no explicit identification of the Teacher with either Messiah; as the evidence now stands, he is probably not to be identified with any of these figures. The most that can be said is that the Teacher is thought to be predicted in scripture as appearing in the "last times"; since the Essenes considered themselves to be living in last times, and assigned the fall of Jerusalem in 63 B.C. to last times, this is at best a highly ambiguous datum.

If there are but superficial parallels between the Essene teacher and Jesus of Nazareth, there are intimate parallels between the Essene and primitive Christian communities. These are to be found in their theological language, in their theology of history, in their liturgical institutions and in their ecclesiastical organization. In these areas the Essene documents are radically important for our understanding of Christian origins and for the exegesis and definition of New Testament expressions and concepts.

The Essenes and the Christians apply similar terms to themselves; they are the people of the "New Testament," who have chosen the Way (cf. Acts 9:2, etc.). Love of God and neighbor is the sum of the law. They are the poor in the world, the children of light, the elect of God who shall judge Israel and the nations at the end of days.

The central "sacraments" of the Essene church were its baptism and its communion meal. The baptism of the Essenes, like that of John, was, upon repentance of sins, into an eschatological community. Contrary to the early Christian institution, the Essenes seem to have practised continual lustrations as well as baptism on initiation into the covenanted community.

In the liturgy of the communion meal of the Essenes, we discover material of the first importance for understanding the eucharistic practice of the early Church. There follow excerpts:

"When [God] begets the (priestly) Messiah, he shall enter with them, [for he is] the head of the whole congregation of Israel; and all the fa[thers of the Aa]ronids, the priests who [are invited to] the feast . . . shall sit be[fore him], each according to his rank.

"Then [shall enter the Mess]iah of Israel, and the chiefs of the thou[sands of Israel] shall sit before him, [ea]ch according to his rank . . .

"Wh[en] they solemnly meet at the [tab]le of communion, [or to drink the wi]ne, and the communion table is arranged and the wine [is mixed] for drinking, one [shall not stretch out] his hand on the first portion of bread or [of the wine] before the (Messiah-) Priest; for [he shall b]less the first portion of the bread and of the win[e, and he shall stretch out] his hand on the bread first of all. Afterwar[ds] the Messiah of Israel shall [stre]tch forth his hands on the bread; [and after giving a bles]sing, all the congregation of the Community (shall partake), ea[ch according to] his rank.

"And they shall follow this prescription whenever [the meal is ar]ranged, when as many as ten meet together."

The *Agape* meal (love feast) of the Essenes is here clearly set out as the liturgical anticipation of the Messianic banquet. This element in the New Testament accounts of the Lord's Supper and in the later eucharistic practice of the Palestinian church was very strong. In the Markan account we read, "Truly I say to you, I shall not drink again of the fruit of the vine until that day when I drink it new in the kingdom of God" (14:25); in the Lukan version it is even stronger, especially if one follows the shorter "Western" text (22:14-19a); and it appears as well in the Pauline and later formulae, "For as often as you eat this bread and drink the cup, you proclaim the Lord's death *until he comes* (I Cor. 12:26); *marana-tha,* "Come (our) Lord," and "the holy vine of David thy servant which was made known to us through Jesus. . . ." (Didache 9:2; 10:6. Cf. Rev. 19:9.)

The Christian community (Acts 2:46, etc.) ate common meals regularly, partaking of the food in joy. Indeed these banquets of joyous anticipation led to the excesses referred to in Jude 12 and I Cor. 11 and to the later reforms which in turn led to the separation of the Eucharist proper from the regular common meals of the faithful.

What is the background of the institution of common meals of the entire community, eaten in anticipation of the Messianic banquet? The Passover, the other element

The pantry attached to the great common room at Khirbet Qumran. A store of more than a thousand pieces of pottery for table use was recovered from the floor level of this pantry.

The large southeast cistern at Qumran. In the foreground on the left is the pottery kiln of the community.

in the background of the Lord's Supper, can give no suitable historical context. It is a yearly feast of memorial, eaten in private in families, and is not, properly, an eschatological festival. The Essene meal gives the first suitable answer.

This is not to suggest that the Church merely took over an Essene meal. Within the Lord's Supper are notable original elements: the formulae which transform the old Passover into the feast of the New Covenant memorialize the sacrifice of the body and blood of the victim, the pledge of the covenant. And there is no reason, I think, to suppose that the combination of the two elements, the memorial of the sacrifice and the anticipation of the Messianic banquet, does not go back to Jesus himself.

Detailed parallels in language and liturgical practice by no means tell the whole story. Still more important is the common theological world view of Essenism and Christianity. Both live in the end of days. Both live in a world in which the powers of righteousness and the power of evil are engaged in warfare: God against Satan, spirit against flesh, the "world" against the Kingdom, the sons of light against the sons of darkness. These two common elements, the eschatological structure of their community life and the "ethical dualism" of their thought, have origins in the Old Testament apocalyptic literature but cannot be explained simply in terms of such origins; they have parallels in Rabbinic Judaism but are not of a piece with it.

The Essene community recognized in the events of their own days the signs of the coming consummation of history. The Old Testament prophecies of the last days are realized in the history of the sect and in the outer events of Israel. They are living in the last generation. Those with "knowledge" should now recognize that the final war has begun. They must decide, understanding by faith the fulfilment of prophecy, expectant of the full consummation.

"When these things come to pass in Israel to the Community (the Essenes) . . . they will separate themselves from the midst of the abode of evil men to go into the desert to prepare there the way of the Lord, according as it is written, 'In the desert prepare ye the Way (of Yahweh), make straight in the wilderness a highway for our God.' "

Thus the Essenes understand themselves to be in the situation of John the Baptist. Jesus' early teachings are in much the same eschatological framework. The man in the early Church is in a somewhat new "historical" moment. He lives in a "later" time. He knows that with the event of the Christ "the world has come to an end" and the powers of Sin and Death are broken. Yet in some sense these too are ambiguous, "historical" events, to be understood in faith. He is to take part in the Kingdom proleptically, anticipating the coming day when ambiguity will end, the world be transformed, an end brought to wicked flesh, and the kingdom of God fulfilled.

The Essenes therefore search the scripture and interpret their prophecies "historically." As several scholars have pointed out, Essene exegesis has no precise parallels either in Hellenistic or Pharisaic Judaism, in allegorical philosophizing or in legalistic interpretation. But it falls precisely into the pattern of the New Testament exegesis of the Law and the Prophets.

The life of the sect is understood as life in anticipation of the kingdom of God. The spirit of Truth abides in its camps. This is the spirit of Unity. The Essenes call themselves the Community, literally the Unity. The Johannine phrase, "that they may be one," "become perfectly one" (John 17:11, 21, 23), uses typical Essene diction.

This eschatological unity or community of the anticipated kingdom is made concrete not only in the common meal but in sharing of goods. Entry into the Essene community meant giving up all private property. In the New Testament church, especially in Palestine, a similar practice appears: "Now the congregation of the believers were of one heart and soul, and no one said that any of the things he possessed was his own, but they had everything in common" (Acts 4:32; cf. 4:32-5:11). "And all who believed were together and had all things in common. . . . And day by day, attending the temple together and breaking bread together (in common meals)

Fragments of Samuel from a manuscript related textually to the Hebrew underlying the Old Greek translation (4Q Sam^a). (Photograph courtesy of Palestine Archaeological Museum)

in their homes, they partook of food with glad and generous hearts" (Acts 2:44-46).

Approaching from a slightly different angle, we learn that the Essenes were soldiers in the Holy War of the end time. They divided themselves into armies, divisions, companies and squads. Being engaged in the War of God, they followed the ancient ritual prescriptions of the Old Testament for Holy War, keeping the purity of their camps. They refrained from sexual intercourse and marriage, kept the stringent sanitary regulations of Holy War, and all the rest. Theirs was not a genuine asceticism but an eschatological asceticism. They did not eschew marriage as such, but marriage in the present circumstances. Compare in Paul's letter to the Corinthians the following passage: "I mean, brethren, the appointed time has grown very short; from now on, let those who have wives live as though they had none . . . and those who buy as though they had no goods, and those who deal with the world as though they had no dealings with it. For the form of this world is passing away" (I Cor. 7:29-31).

The mention of the state of war brings us to a final point. According to Essene doctrine the world is in the grip of two warring spirits, created by God from the be-

THE SCROLLS *continued*

ginning: the Spirit of Truth and the Spirit of Lying (or Perversity; cf. I John 4:1-5). The Spirit of Lying is none other than Belial, the Prince of Darkness, Satan. The Spirit of Truth is otherwise called the holy spirit (not precisely identical with the Holy Spirit), the prince of lights, the angel of truth. All men have their "lot" in one of these spirits and thus are children of light or children of darkness (cf. John 8:42-47). The "Prince of Light" or Spirit of Truth is appointed to the help of the children of light. He is identical with the Paraclete (Advocate) of John (John 14:17; 15:26; 16:13; I John 5:6-8). His function, "to witness," "to intercede," to speak, yet "not on his own authority," now becomes intelligible. The origins of the idea are found in the Heavenly Court of God in the Old Testament where, in scenes of judgment, Satan as prosecutor stands over against the angel of the Lord as advocate or witness. In the elaborate angelology and dualism of the Essenes, partly under Iranian influence, Old Testament origins are blurred and the two angels become the two opposing principles of light and darkness, truth and error. In the New Testament the dualism is partially resolved, but reflections of an Essene structure of thought still survive. This is especially clear in the Johannine Advocate, but also to a lesser degree in the special function of the Spirit in Acts and in Paul.

In these new texts we are in the conceptual world of the New Testament. The New Testament and the Essene writers draw on common resources of language, theological themes and concepts, and share common religious institutions. They breathe the same atmosphere, confront the same problems. We can now enter into this rich, variegated world of sectarian Judaism in the first century A.D. with new boldness and understanding; the strange world of the New Testament becomes less baffling, less exotic.

Fragments of Samuel from the earliest of the Qumran manuscripts, dating from the later third century B.C. (4Q Sam[b]). (Photograph courtesy of Palestine Archaeological Museum)

By P. L. Shinnie

NUBIAN CHURCHES

OF ALL THE EXTENSIONS of Byzantine influence and culture none is stranger or less known than that which was established, with the introduction of Christianity in the sixth century A.D., along the Nile from Aswan to far south of Khartoum. Here, cut off from all contact with the Mediterranean by the Arab conquest of Egypt little more than a hundred years after Christianity had entered the land, Byzantine art forms continued, churches of basilican style were built, and officials of the royal court bore such Byzantine titles as *domesticus* until at least the eleventh century. Greek was used as the liturgical language and a grave inscription in Greek is known from as late as the year A.D. 1181.

The first seeds of Greek culture were planted by rival groups of missionaries, both Melkite and Monophysite, who came into Nubia from the year A.D. 540 onwards. The best documented are the Monophysite missionaries sent by the Empress Theodora, for the writings of John of Ephesus give us in some detail the story of the two main missions, that of Julian and Theodore in A.D. 542, and that of Longinus, who, first coming to Nubia in A.D. 569, in the year 580 went farther south to the kingdom of Alwah and converted the king at his capital of Soba, not far from modern Khartoum.

There is reason to suppose that a rival Melkite, or Orthodox, mission under the patronage of Justinian was also at work, and the evidence of the prayers used on the tombstones, which are all taken from the liturgy of the Orthodox church, suggests that they were not so unsuccessful as the heavily biased John of Ephesus implies. Whatever the outcome of the theological rivalries may have been, both sides were introducing the same culture and when the Nubian kingdom of Dongola and its church were firmly established in the eighth century by the fusion of the two earlier states of Nobatia and Makuria, it is clear that Byzantine forms and not Coptic ones were dominant, even if, as seems probable, the church had by that time become Monophysite and had its bishops nominated by the Coptic patriarch in Egypt.

During the course of the nearly eight hundred years before Islam overran the northern Sudan in the early fourteenth century, and the thousand years before Soba fell to the Fung, there was a flowering of culture in the narrow riverain strip of Nubia which was never to be repeated. Churches were built and decorated, beautiful painted pottery was made, and in addition to Greek the vernacular speech known as Old Nubian, ancestral to the modern Mahass, was reduced to writing, using the Coptic form of the Greek alphabet with a few additional letters derived from Meroitic.

Aside from that part of Nubia now in Egypt, which falls outside the scope of this article, the remains of over

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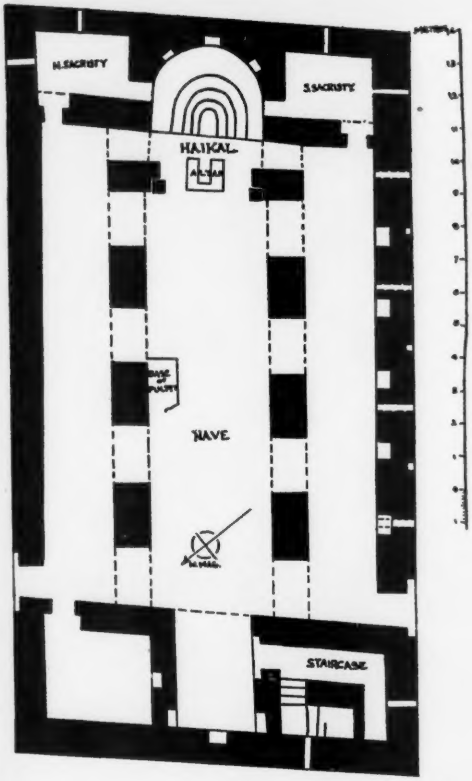
• Born in 1915, the author was educated at Westminster School and at Christ Church, Oxford. During the war he served in the R.A.F. as pilot and intelligence officer. After a year at the Ashmolean Museum he was called in 1946 to the Sudan as Assistant Commissioner for Archaeology. From 1948 to 1955 he served as Commissioner. Mr. Shinnie has recently left this post and is now in England preparing a book on the history and antiquities of mediaeval Nubia. In the Sudan he directed excavations at Amara West, Soba, Tanqasi and Ghazali, and he has published numerous articles on the archaeology of the Sudan, besides editing *Kush,* the journal of the Sudan Antiquities Service.



1. Plan of a church at Faras.

2. The monastic church at Ghazali, east end. The pulpit is between the second and third pillars from the east in the north row.

3. West end of Ghazali church, showing in the south-west corner the arched doorway from which a flight of steps led up to the tower.

NUBIAN CHURCHES continued

4. The tower doorway of Ghazali church as blocked up in later times.

5. View across Ghazali church from the north showing monastic buildings in the foreground.

6. The water tank or bath outside the north wall of the church at Ghazali.

fifty churches are still to be seen in the area from the present Egypt-Sudan frontier near Faras to Sennar, nearly two hundred miles south of Khartoum. They are mainly small, the parish churches of villages of peasant cultivators, and most are built of sun-dried brick, the normal local building material—though in some places of special importance, such as Faras, the capital of a province and seat of a bishopric, they are larger and of stone.

The design is in nearly all cases basilican, a rectangular building with nave separated from north and south aisles by an arcade, and an internal apse. A church at Faras East (Figure 1) shows a typical example. It closely resembles the basilican type churches of Byzantium as well as Coptic ones, but unlike the Coptic churches it has only one altar, the two small rooms to north and south being clearly used as sacristy and vestry in the Greek way. The nave arches were sometimes supported on brick columns, sometimes on monolithic pillars of granite. In the bigger churches the east end normally has the row of seats known as the tribune behind the altar. In the southwest corner there was often a tower, presumably for a bell, and traces of stairs going up to it have been found in some places. The pulpit stands against one of the pillars of the north aisle, with the steps to the west, suggesting that the preacher turned his back to the congregation. It in many ways resembles a *minbar* in a Muslim mosque rather than a Christian church. In none of the churches of the Sudan has any trace been found of the Epiphany tank, a feature common in Coptic churches, though at Ghazali there is a tank or bath outside the north entrance to the church.

This church at Ghazali, which is in course of excavation, is the largest in the Sudan and, in many ways, the most interesting (Figures 2-6). It is unlike the vast majority, built of well dressed sandstone blocks up to a height of about twelve feet, and above that with red brick. The red brick has now almost entirely gone, but the stone walls on three sides of the church are still standing to nearly their original height. It was a monastic church and is surrounded by the domestic buildings of the monastery, most of which are built of dry stone walling in a much rougher fashion than the church itself. Some of them, probably the later ones, are built of sun-dried brick. No date can yet be assigned to this building, but it is likely that it was built in the tenth or eleventh

NUBIAN CHURCHES continued

8. Wall painting showing the Bishop of Faras, from the River Gate Church, Faras.

century, the period of greatest power of the Nubian kingdom. A point of interest, the full significance of which is not yet understood, is that at Ghazali a large number of the funerary inscriptions are in Coptic, a language which is very rarely found in other parts of Nubia, where the tombstones are normally in Greek. Perhaps it was partly occupied by refugee monks from Egypt.

The interiors of Nubian churches seem to have been normally decorated by paintings of the saints and other religious themes. The best preserved are those at the church of Abdel Gadir, near Wadi Halfa, where the walls are still covered with paintings of this type. An illustration of one of these is shown here (Figure 7). It is of very special interest, since it is not the usual illustration of a saint, but shows the Eparch, or Governor, of Nubia wearing on his head the horned headdress which seems to have been the mark of Nubian royalty. He holds in his hand a representation of a church, presumably the church of Abdel Gadir, of which he was probably the founder. The other illustration (Figure 8) comes from the River Gate church at Faras and shows a bishop of the Nubian church. Since Faras, which was the capital of the northern province of the kingdom, is known to have been the seat of a bishop, it is likely that the representation is of the Bishop of Faras himself, and that the River Gate church was his cathedral.

The one exception to the regular basilican style of church is the one at Old Dongola (Figure 9). Old Dongola was the capital of the kingdom for many centuries, but it is now so destroyed and covered by sand that only one church remains. The remarkable feature of this church is that it is above ground level. It is on the second floor and is approached by a flight of steps from the ground. The plan of the church itself is square, but the original features have been largely obliterated by its later use as a mosque. It contains an Arabic inscription of the year A.D. 1317, which describes how it was turned into a mosque before the Muslim conquest. No analogies to this church pattern are known from the Sudan, but it has been suggested that such may exist in Abyssinia.

9. The Church at Old Dongola. The church is on the second floor; a flight of stairs leads up to it from the main entrance. (Photograph by O. G. S. Crawford)

7. Wall painting depicting the Governor of Nubia, in the church at Abdel Gadir.

By R. J. H. JENKINS
Professor of Byzantine History, King's College, London

TENTH INTERNATIONA

THE CONGRESS OPENED at Istanbul on September 15, 1955, under gloomy auspices. The riots directed against Greek and foreign property had taken place on the night of the 6th. The city was still under martial law. A curfew was enforced at 10:30 p.m. (though this was later relaxed until midnight). Many of the papers delivered at the seat of the Congress, which was the Faculty of Literature in the University of Istanbul, were inaudible owing to the din of armored vehicles patrolling outside. The prevailing tension had also caused the defection of a large Greek delegation, which entailed the cancelling of some thirty communications; and there were, for one reason or another, many notable absentees from other countries.

Despite all this the Congress was, in the opinion of almost all those present, a great success. That it was so is due to the unwearying industry and cheerfulness of the President, Professor Arif Müfid Mansel, of his able Secretary-General, Professor Suat Sinanoglu, and of a devoted band of guides and helpers whose courtesy and efficiency were beyond praise. The program, which had been rendered useless by events outside the control of the organizers, was speedily refashioned and the revisions were clearly posted day by day. Nothing was left undone to assist the delegates. Free passes for buses, trams and steamers were distributed. Churches, mosques and museums were open almost all day. A memorable excursion up the Bosphorus, returning by way of the sea walls and the Prince Islands, was enjoyed by a full muster of members. A most valuable convenience was the circulation of a summary of each communication on a separate fly-sheet.

The cancellation of so many papers was, moreover, not wholly to be deplored: for it left more time free to explore the material remains of the Queen of Cities. Byzantium herself was in truth the chief hostess; and it is not surprising that Byzantinists had difficulty in examining all her treasures in the short time available. Promi-

Detail from mosaic panel, "The First Seven Steps of the Virgin," in the Kahrie Djami, Istanbul. Early fourteenth century.

CONGRESS OF BYZANTINE STUDIES

nent among these were the recently uncovered mosaics and frescoes of St. Sophia and the Kahrie Djami. For these sincere gratitude was felt towards Professor Paul Underwood and his assistants, and towards those American subscribers whose generosity had made the work possible; the vote of thanks proposed to them in the final session of the Congress was carried with acclamation. Capital exhibitions of jewelry and manuscripts were also on view in the Archaeological and Topkapı Museums. In sum, to the many delegates whose first visit to Istanbul this was, it will remain a unique and delightful experience.

The practical work of the Congress was, as we have said, hampered by absences. But the presence of Professors Grégoire, Dain, Dölger, Ensslin and Ostrogorsky (to mention a few of the more eminent) ensured a rich feast of new information and fruitful discussion. For the first time since the War a Soviet Russian delegation was present, including Professors Lazarev and Angelov. Communications were delivered in afternoon sessions in the

Recently uncovered fresco in the Kahrie Djami (Monastery of Chora), Istanbul. Detail from the Anastasis (Christ raising Adam at left and Eve at right) in the conche of the apse of the Parecclesion. Early fourteenth century.

Photographs courtesy of the Byzantine Institute, Inc.

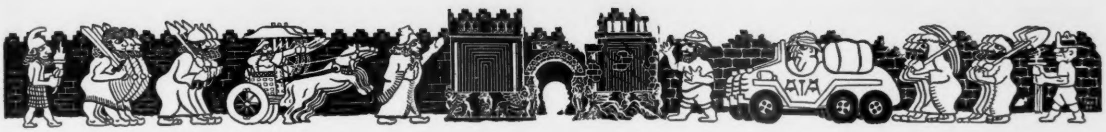
five sections of Art and Archaeology, History, Literature, Law and Theology; mornings were devoted to General Sessions, which provided papers by eminent delegates on their own subjects before audiences drawn from all sections.

There is no space to comment on the communications in detail; but the final General Session, devoted to Art and Archaeology, included three papers of exceptional interest. Professor Talbot Rice showed pictures of the splendid fifth century mosaics discovered by the Walker Trust excavation in the Great Palace, and attributed them to a specifically Constantinopolitan school. Professor Lazarev set out, with copious illustration, his conclusions about the construction and decoration of the cathedral of St. Sophia at Kiev. And Professor Underwood gave a most interesting account of the sixth, eighth and ninth century mosaics in the southwest rooms of the gallery of St. Sophia, showing how the second group remodeled the first in an iconoclastic spirit, while the third group in turn celebrated the triumph of Orthodoxy over Iconoclasm.

At the closing session on September 21st, Professor Grégoire, President of the International Committee, reviewed the work of the Congress, and Professor Dain, the Secretary, communicated the decision of the Committee that the next Congress should meet in Munich in 1958. The invitation was cordially tendered by Professor Dölger. Invitations were noted for future Congresses to be held in Ochrida, Oxford and Moscow. Hopes were expressed that means may be found to repair the city wall, which is especially dilapidated at the Golden Gate, and that it may be possible to found an international Academia Byzantina in Istanbul itself.

After the Congress was over, many availed themselves of excursions to the Ionian coast and to Cappadocia. Best thanks are due to the Turkish authorities, who worked under great difficulties to make the occasion a success.

Recently uncovered fresco in the Kahrie Djami (Monastery of Chora), Istanbul. Detail from the scene of The Raising of the Daughter of Jairus, in the Parecclesion. Early part of the fourteenth century.



ARCHAEOLOGICAL NEWS

Annual Meeting of AIA

The Fifty-seventh General Meeting of the Archaeological Institute of America was held December 28-30 at the Morrison Hotel, Chicago, Illinois, in conjunction with the eighty-seventh meeting of the American Philological Association. The meetings were attended by 440 persons, a large number for a midwestern meeting.

The first session for the reading of papers, on Wednesday afternoon, opened with Saul Weinberg's report on preliminary excavations of an Early Bronze Age site conducted by the University of Missouri at Curium, Cyprus. J. Walter Graham followed, presenting theories concerning the shallow recesses characteristic of the façades of Cretan palaces. These would materially affect the usual restoration of the *piano nobile* in these palaces. Carl W. Blegen described the progress made since 1952 in clearing the palace of King Nestor at Pylos, Greece. W. A. McDonald offered tentative results of a comparative study of place names in the Pylos area, based on names from the Pylos tablets and from sources extending from Homer to the present time. Rodney Young described the results of the University of Pennsylvania's 1955 campaign at Gordion, Turkey, and the session concluded with Machteld J. Mellink's discussion of two vases painted in a primitive Anatolian style of the sixth and fifth centuries B.C., one found at Gordion, the second formerly assigned to Iberia.

At the evening session held jointly with the American Philological Association, Harry Caplan, President of the APA, delivered the presidential address. Using as his theme Quintilian's phrase "Memory, Treasure-house of Eloquence," Professor Caplan spoke lightly and learnedly on the meaning and use of memory in the ancient world, as witnessed by ancient authors, and described devices used in those times for memorizing.

On Thursday the 29th the sessions were held at the Oriental Institute, where a symposium had been arranged on "Narration in Ancient Art." As Carl H. Kraeling, moderator of the morning session, emphasized, the period of time to be covered was more than two thousand years, so that compression would be necessary and would inevitably result in "highlighting." To limit the problem, narrative art was defined as "that form of representational art in which the artist advances from the rendering of the typical and the casual to the specific and the noteworthy."

Helene Kantor, speaking on Egypt's contribution, showed that narrative art was foreshadowed in the pre-dynastic period but that no true narrative art appeared until the New Kingdom. In this period narration was widely used and had considerable development. Its culmination was reached in the reign of Ramses II; specific narration developed no farther.

Ann L. Perkins, speaking on Babylonia, confined her discussion to the southern half of the country. Babylonia, without suitable stone for sculpture, produced no large-scale works, and since its religion excluded the Egyptian type of scene there are few narrative works of art and no discernible development. Two distinct methods of presenting narrative can be noticed, however: the "monoscenic," in which only the chief point is represented; and the "episodic." At times both methods are combined in a single work of art.

The third speaker, Hans G. Güterbock, discussed Assyria, Syria and Anatolia, pointing out that these form a logical unit because their art is later in time than that previously discussed, they are peripheral to the center of Oriental civilization, and all have stone which is suitable for monuments. The methods of representing narrative are here also either monoscenic or episodic. True narrative appears in the Old Hittite kingdom on painted relief vases. In the large-scale sculpture of the Hittite Empire some of the scenes may be interpreted as narrative in intent, though this is not always easy to tell. Numerous Assyrian monuments depict battles, hunting parties, etc. which can be interpreted as narrative. Finally, there are Phoenician bowls with narrative scenes.

The moderator for the afternoon session, Frank E. Brown, discussed narrative techniques in art and showed that "the experience of the ancient Orient . . . was the inheritance . . . of the world of Greece and Rome."

George M. A. Hanfmann, taking up narrative art in Greece, explained how it developed from the generalized form of the Geometric period through the monoscenic representation of the Orientalizing period to Archaic art, which employed a series of static units. The great contribution of the Classical period was the introduction of the emotional and psychological element, best expressed in large single pictures showing only the protagonists. Presenting the Parthenon frieze as the supreme expression of Classical narrative art, Dr. Hanfmann showed how it surpassed the art of Egypt and Assyria.

Hellenistic and Roman art was discussed by Peter H. von Blanckenhagen, who described the development of continuous narrative, both in friezes and in single pictures. The change from the coherent perspective of Hellenistic art to the combination of birdseye view and normal perspective in Roman art was brought out. The speaker maintained that continuous narrative in single pictures was an element characteristically un-Greek, which foreshadowed the art of late antiquity.

Kurt Weitzmann took up the story with an account of book illumination, in which a single episode was divided into a number of consecutive phases. Such illustration began in Hellenistic Alexandria on papyrus scrolls which illustrated the Greek classics; then de-

A lighter moment of the AIA meeting—in the Babylonian Hall, Oriental Institute.

veloped rapidly when the parchment codex was invented at the end of the first century A.D. The Hellenized Jews found book illustration an ideal medium for the presentation of Biblical stories, and Christian artists later developed the art of illumination into a leading branch of painting.

The symposium was followed by a cocktail party in the Babylonian Hall of the Oriental Institute Museum, during which the members had an opportunity to wander about the galleries and enjoy an interesting exhibit assembled particularly for the symposium.

On the evening of the 29th the Annual Banquet was held, and GREECE, a documentary film produced by Ray Garner under the auspices of the AIA, was shown.

At the morning session on December 30 Carla Gottlieb presented a restoration of the epistyle of the Nereid Monument at Xanthus in Asia Minor. Dorothy K. Hill discussed certain Greek and Etruscan bronze vase handles in the form of a male figure with lions and rams. Homer A. Thompson described progress made during 1955 in the Athenian Agora, including excavation and the restoration of the Stoa of Attalos and the Church of the Holy Apostles. Evelyn B. Harrison assigned three small sculptural fragments, found in the excavations of the Agora, to the west pediment of the Temple of Hephaistos, suggesting that the theme was the centauromachy at the wedding feast of Peirithoos. Thalia Phillies Howe theorized that the prototype of two representations of the Amykos-Argonauts legend must have been a fresco painted by Mikon for the Temple of the Dioscuri in Athens. Teresa Goell described her researches and excavation at Nimrud Dagh, in Central Turkey, showing pictures of the rugged mass of Antiochus' tumulus and the sculptures around it. She hopes eventually to penetrate the mound and to find the tomb within.

At the final session on Friday afternoon, Lawrence Richardson spoke on Cosa and Paestum, comparing the *comitia* of these two Italian cities. K. M. T. Atkinson discussed a Roman festival cake-stamp, showing its close relation to Alexandrian coinage of the second and third centuries A.D. David M. Robinson described a bust of the Empress Livia in his collection and discussed various statues and busts which have been called Livia. Ray Winfield Smith urged a coordinated research program on ancient glass, pointing out the problems and the advantages which would result from such an undertaking. Arid zone farming practices in southern Palestine during the sixth and seventh centuries were described by Philip Mayerson, whose evidence included papyri found by the Colt Archaeological Expedition, aerial photographs and comparative data. Frederick P. Bargebuhr argued that the "Solomonic ideal," the legendary palaces of Solomon as described in the Bible, Koran, etc., became the archetype for both Byzantine and Islamic Spanish court and garden architecture. The last speaker, George Lechler, discussed a very early phase of tool making, as revealed by a collection of animal bones found at Makapansgat, South Africa.

The next annual meeting of the AIA is scheduled to take place in Philadelphia, Pennsylvania, in December.

From Pennsylvania to Peru

The University Museum of the University of Pennsylvania has renewed a long neglected interest in field work in Andean archaeology, first undertaken for the Museum by Max Uhle in the 1890's.

From June to mid-November, 1955, an expedition headed by Dr. Alfred Kidder II, Associate Director of the Museum, worked in the Lake Titicaca Basin in both Bolivia and Peru. Mrs. Kidder and Mr. William R. Coe III, a graduate student at the University, accompanied him, and Mr. Alan R. Sawyer of the Art Institute of Chicago worked with the expedition for two months. Mr. Sawyer's participation reflects the new interest in pre-Columbian art at the Art Institute, where he is in charge of outstanding, newly acquired Peruvian collections.

Minor excavations were made at Tiahuanaco, Bolivia, in an attempt to learn more of the little understood Early Tiahuanaco phase. Levels of this period were reached in two pits, producing pottery of types described by Wendell C. Bennett, as well as the characteristic pottery "buttons." Newly discovered features include arrowheads, and a painted and incised stone bowl. Good carbon samples, chiefly composed of burned llama bones, were also recovered. The Tiahuanaco work will make possible thorough illustration of plain wares of all phases at the site, hitherto known chiefly from verbal description.

The Tiahuanaco finds were recorded and analyzed in the National Museum in La Paz. This task was greatly expedited by the splendid cooperation of the Director, Dr. Manuel Liendo Lazarte and the Assistant Director, Sr. Gregorio Cordero M. The latter accompanied the expedition in the field and was of enormous assistance in excavating.

Five weeks were then spent at Chiripa, a most important, apparently fully pre-Tiahuanaco site, on the lake

shore northwest of Tiahuanaco. Bennett's pioneer work was continued, with the advantage of his data and the opportunity to analyze fully the collections, which he had not been able to do. A lower level of houses, below those reported by Bennett, was found, as well as much new data on the houses of the upper level of the mound. These hollow-walled structures seem to have been placed contiguously around a plaza to form a compact village of fifteen or sixteen units. In the burned debris a considerable quantity of charcoal, providing good C-14 samples, was accompanied by charred potatoes, *quinua,* remains of cordage and some fragments of coiled basketry. Although the plain ware has not been studied it seems to be quite different in form from that of known Titicaca Basin sites. An interesting new double-spouted animal effigy vessel form was also found.

After recording the Chiripa collection, except for plain wares, which are to be loaned for study, Dr. and Mrs. Kidder proceeded to the Peruvian site of Lake Titicaca for a short dig in company with Dr. Manuel Chávez Ballón, of the University of Cuzco. A small excavation at Pucara was made primarily to procure charcoal for C-14 dating of that culture.

Dr. Chávez had discovered an apparently earlier phase at Caluyo, near Pucara. There a test pit showed the new Caluyo pottery to be, in fact, pre-Pucara, and quite distinct. Plain wares of types different from those of Pucara are associated with monochrome pottery marked by hard, smooth grooving or wide incision, and with cream-slipped ware painted in simple geometric patterns in black or red. This new phase is known only from a small sample, and is not obviously closely related to any other in the area.

Cleaning exterior wall of Chiripa house. Dark slot in left center is bin; slab at left covers bin against other wall. Pavement at right flanks adjoining house.

Fifth Anthropology Congress: 1956

At the invitation of the American Anthropological Association and the University Museum, University of Pennsylvania, the Fifth Congress of Anthropological and Ethnological Sciences will be held in Philadelphia from September 1 to September 9, 1956. This will be the first time that the Congress has met in the western hemisphere.

The Congress program, as planned by the Committee and approved by the Permanent Council at its 1954 meeting in Paris, will consist of meetings of sections, joint sessions and general sessions, at which scientific papers will be presented and discussed; the presentation of films and recordings; excursions; free evenings for entertainment in Philadelphia homes; receptions; meetings of the Permanent Council and of the International Union of Anthropological and Ethnological Sciences.

The sectional meetings will include papers submitted in the following categories: Prehistory, Palaeoanthropology (Human Evolution), Physical Anthropology, Linguistics, Ethnography, Ethnology, Applied Anthropology, and Museology.

One paper will be accepted from each participant. Abstracts should be in hand by March 1, 1956. No papers with a lengthier oral reading time than twenty minutes will be accepted for publication, and publication cannot be guaranteed. Rooms in University buildings will be available to members at $2.50 per night. The registration fee is $10.00; relatives of members may become Associate members, the fee being $3.00. Inquiries should be addressed to the Secretary, American Organizing Committee, International Congress of Anthropology, National Academy of Sciences-National Research Council, 2101 Constitution Avenue, Washington 25, D. C., U. S. A.

ESAF Meeting

The Annual Meeting of the Eastern States Archeological Federation was held at Yale University, Saturday and Sunday, November 12-13, 1955. About one hundred delegates from twelve of the sixteen State archaeological societies attended. Papers were read mornings and afternoons, and after the dinner on Saturday evening Paul B. Sears, Professor of Conservation at Yale University and President of the American Association for the Advancement of Science, gave an exceedingly interesting address on "The Archeology of Climate in North America." In large part he outlined the changes in climate in various parts of the continent, as indicated by the pollens of different trees in geological strata.

Saturday morning, following the opening speech of welcome by President C. A. Weslager, three illustrated papers were devoted to Ohio and Pennsylvania. Charles Sofsky described the archaeology of "The Mosquito Lake Site" in Ohio. The excavation of "The Buyler Mound, a Middle Woodland Manifestation" was the topic of John Zakucia's talk, and William J. Mayer-Oakes told about "The Carnegie Museum Excavations at the Varner Site, 36 Grl."

In the afternoon, following a business meeting at which archaeological activities in the various states were briefly mentioned, Donald D. Hartle described the excavations at "The R.C.A. Site, Princeton Junction, New

Jersey." William S. Fowler gave his views on "The Stone Bowl Industry; Its Importance as a Culture Diagnostic," and John Witthoft spoke on "Middle Woodland Core and Flake Tool Industries of the Eastern United States."

The Sunday sessions were devoted to New England, mainly Connecticut, and to New York. "Archeological Research in New Hampshire" was outlined by Howard R. Sargent. Lyent W. Russell described "The Grannis Island Site, New Haven, Connecticut," and Robert C. Suggs the "Excavations at Greenwich Point, Connecticut." "A Preliminary Stone Point Chronology for Eastern Connecticut" was proposed by Gustavus D. Pope, Jr., and Gary Vescelius described the "Excavations at Pattie's Caves."

In the afternoon Marshall B. McKusick described the "Pottery from the NAS 2 Site, Long Island," and the work at "The Garvie Point Site—OYB 1-3" was presented by Edward D. Patterson. The meeting closed with a description of "The Pelham Boulder Site, Bronx County, New York," by Julius Lopez.

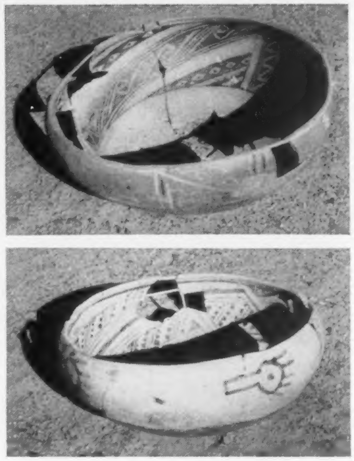
J. ALDEN MASON

Research in Zuni Prehistory

During the summer of 1955 Professor Richard B. Woodbury of Columbia University and Nathalie F. S. Woodbury of Barnard College carried on field work at Atsinna Ruin, El Morro National Monument, in northwest New Mexico.

Continuing investigations begun in 1954, they completed the clearing of a large circular kiva and dug a single test to bedrock at a site just north of Atsinna across the box canyon. This site appears to be contemporaneous with Atsinna.

The kiva proved to have a number of interesting features. Its diameter is approximately nine meters, and it has a bench about 50 cm. wide completely encircling it except on the south, where it widens out to a platform about 2.25 m. across. As is usual in Southwestern kivas, a ventilator passes under (or divides) this southern platform. There is a U-shaped deflector between this and the fireplace. On each side of the fireplace is a rectangular pit bordered with stones which lie at floor level on the east and west sides and slightly below floor level on the north and south. These pits are believed to be floor

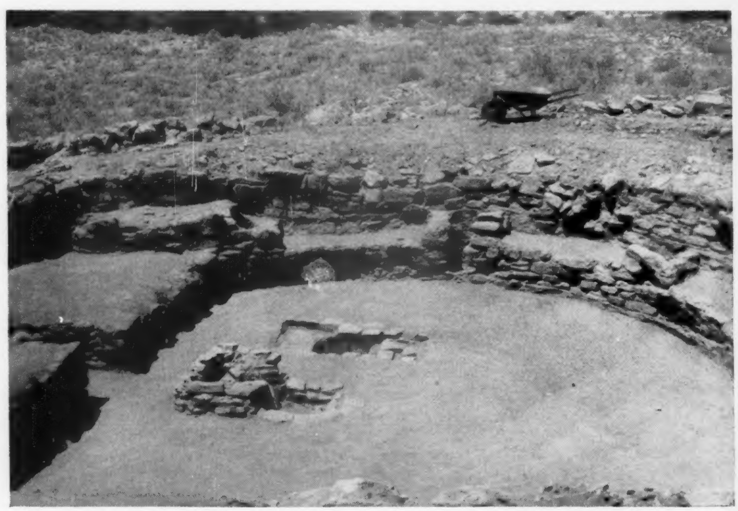


Two bowls, found in fragments, now restored. Above, a bowl of Heshotauthla Polychrome, a glaze variant on St. Johns Polychrome and a successor of it; below, a bowl of glaze on white, with red slip on the exterior of the base.

drums, with the bordering stones arranged to permit the placing of poles or planks over the openings. The roof of the kiva was supported by six large posts set into the bench, three on the east and three on the west, and encased in masonry pilasters. Since no post holes were found on the north and south it may be inferred that the three main roof beams ran east and west, with cross beams resting on the top of the wall. This kiva was built on a deep accumulation of rubbish, which explains the poor preservation of its clay floor. It seems probable that it was in use at approximately the same time as the square kiva located nearby to the northeast. Both are incorporated within blocks of rooms and had been abandoned and partly filled with rubbish before the village was deserted.

A good part of the season was devoted to the analysis of sherd material from both the 1954 and 1955 excavation. Since no complete vessels, either intact or crushed, were found on room floors or in burials, it was gratifying that five fairly complete bowls and several less complete jars could be restored.

In summary, the two seasons' excavations at Atsinna Ruin show (1) a surprising elaboration of architectural details in domestic rooms; (2) the presence of both a round and a square kiva, types generally having affiliations to the north and east, and to the south and west, respectively; (3) evidence for gradual abandonment of the village, and consequent removal of all but the most bulky and least valued objects; (4) an occupation from some time in the twelfth century to some time in the fourteenth century; and (5) ceramic evidence of very intimate connections with prehistoric Zuni sites, such as Hawikuh and Ketchipawan, some forty miles to the west, to which the people of Atsinna may have migrated to join other groups as founders.



The circular kiva, looking west. The broad platform is at the left, with the fireplace in line with the ventilator trench which divides it. Beyond the fireplace is one of the floor drums; the other, not yet excavated, is at the lower left.

Annual Anthropology Meeting

The Annual Meeting of the American Anthropological Association, jointly with the Society for American Archaeology, the American Ethnological Society, the American Association of Physical Anthropologists and the Society for Applied Anthropology, was held in Boston, November 17-19, 1955. The attendance was over five hundred. Of the twenty-two sessions only four were devoted exclusively to archaeology, but a few archaeological papers were given in other sessions.

One session was a symposium on Middle American archaeology. A. V. Kidder opened with a general appraisal and historical sketch of its development and its outstanding students. Gordon F. Ekholm outlined the "Archaeological Sequences," presenting a chart showing his opinions of the cultural development in each of eight culture areas through the Pre-Classic, Classic and Post-Classic periods. Our knowledge of the Pre-Classic is still relatively slight. Carbon 14 dates have helped little so far, in his opinion. Tatiana Proskouriakoff spoke of the development of art in Middle America, traits, the distribution of elements, certain characteristic and diagnostic art elements, and the dominance of definite art styles at different periods. J. Eric S. Thompson spoke on "Writing and the Calendar," reviewing the history of the study of the hieroglyphs. Each site has its characteristic glyphic forms. He is working on the many glyphs not yet interpreted, and compiling a dictionary. "Cultural Geography" was Homer Aschmann's subject. He treated questions of environment, climate, altitude, volcanic activity, soils, food-gathering, horticulture, agriculture, terracing, soil-depletion, cultivation, maize and kindred topics. The Middle Americans had slight interest in root crops and practised no manuring, having no large domestic animals. Even among the highest cultures, "slash-and-burn" was the only agricultural method. Each of the foregoing papers was discussed by two specialists who offered additional and pertinent comments.

At one session the 1955 Summer Seminars in Archaeology were reviewed (see report by Robert Wauchope on pages 68-69).

In a general session Clifford Evans and Betty J. Meggers presented a most important paper on "Early Peruvian and Middle American Archaeological Traits in Coastal Ecuador." In the latter region they found, in the lowest stratum of a mound made by occupation debris, in the basin of the Guayas River, a pottery complex very similar to early-horizon pottery both in northern Peru and Mexico. It is the first such discovery between Honduras and Peru. The wares are mainly highly polished monochrome. One technique is not Andean and the shapes are purely Mesoamerican. The ware is fully developed in the lowest levels, indicating that the technique was developed elsewhere. The greater resemblance to Mesoamerica and the absence of some traits in Peru suggest a north to south movement. Napkin-ring earplugs identical with some from Mexico and Guatemala were found. The houses were at least partly of wattle-and-daub construction.

A symposium on "Dryland Asia: Man, Culture, and Environment" naturally had some archaeological facets. D. B. Shimkin spoke on "Environment and Culture in Central Asia," W. D. Schorger on "Environment and Culture in the Middle East."

At the principal session on American Archaeology, Preston Holder reported on "Dedicatory Interments as a Mound-Building Feature in the Central Cahokia Group," describing excavations at this great site near St. Louis. In a small mound 175 burials were found, most of them bundle burials which generally contained an adult male, an adult female and an adolescent or infant. A dedicatory sacrifice is indicated. Wilbert K. Carter spoke on "Iron Traded to Alaskan Eskimos Prior to 1000 A.D." Recent excavations in the Birnirk culture site at Point Barrow revealed several knives with iron blades. Not of meteoric origin, the iron had evidently been traded from Siberia. "The Late Sinagua Culture in Northern Arizona" was described by John C. McGregor. He thinks that Sinagua should be classified as a "stem" of the Mogollon root. They had kivas of the general Hopi type and fine typical Anasazi pottery. Clement W. Meighan spoke on "Shellmound Analysis in Archaeological Interpretation." Shellmounds typically contain few artifacts, especially on the Pacific Coast where pottery is missing, but a careful analysis of the content gives important data on the native dietary, the results often being very different from a macroscopic estimate. The samples analyzed were 4″ x 4″ blocks taken at 6″ levels, scored by weight. "The Ceramic Position of Palenque, Chiapas, Mexico" was discussed by Robert L. and Barbara C. Rands. The pottery of this famous Maya site has not been well known. The Early Classic period is not well represented. Calcite and quartz temper were succeeded by sand, and polychrome painting was replaced by unpainted wares. There are no cylindrical tripod vessels. The city was abandoned before the appearance of plumbate ware. In "A Practical Application of Ethnological Research to an Archaeological Problem," Carol K. Rachlin found resemblances between

weaving on modern Fox Indian medicine bags and weaving techniques shown by impressions on pottery saltpans from the Angel Mounds in Indiana. Both are of alternate-pair twined technique. There are considerable differences in detail, however, especially in the angle of the stitch.

One session was devoted to "Culture Historical Theory." Robert Carneiro spoke on "Agriculture and the Beginning of Civilization." The beginnings were similar in Europe, China and America. The slash-and-burn technique was not limited to the American tropics but was also employed in primitive Europe. The evolution of the State was due to the exigencies of agricultural boundaries and methods. Robert W. Ehrich spoke on "Culture Area and Culture History in Old World Archaeology." The American anthropological concept of culture areas can be applied also to the Old World. There are four types of areas: 1) focal areas, as Egypt and Mesopotamia, 2) transition areas, 3) areas of varied affiliation at different periods, 4) mixed areas. Turning to America, "Changing Living Patterns of the Yucatan Maya" were discussed by George W. Brainerd. There is no evidence that the low density of population in Yucatan, now about thirty per square mile, was any greater in Classic times. Only about a fifth of the land is in cultivation at any one time under the slash-and-burn system of agriculture, which requires only about sixty days of work per year. The old cities in the Puuk region were dependent on reservoirs or *chultunes* in the dry season, yet had 2000-6000 inhabitants. They were either abandoned before the Toltec intrusion, or the Toltecs compelled the people to migrate to northern Yucatan. "Socio-Political Interpretation of the Tiahuanacoid Period on the Peruvian Coast" was the final paper, by Richard P. Schaedel. The Tiahuanaco period on the northern coast must have been longer than usually credited, since the volume of building is three times that of the Chimu period and double that of Chimu and Inca combined; he suggests A.D. 750-1250. Towns were large, first with exterior defense walls and later with internal partition walls, and irrigation canals leading to the town. Pacatnamu (Pacasmayo), Incapampa, Agua Hedionda and Paramonga are typical towns of this period.

J. ALDEN MASON

Temple III at Tikal, showing dense vegetation partially cleared away. (*Peabody Museum Memoirs,* V)

Restoration of Mayan Jungle City

Tikal, a long-abandoned metropolis of the Maya now swallowed up by the tropical jungle of the Peten area of Guatemala, is to be explored and partially restored by the University Museum of the University of Pennsylvania. The project is under the general direction of John Dimick. The field director is Edwin M. Shook of the Carnegie Institution of Washington, and the chief archaeologist is Linton Satterthwaite. The first season's work, beginning in January, 1956, will be devoted to setting up living and working quarters and clearing away enough jungle growth to enable the members of the expedition to select buildings for restoration.

The site of Tikal, which was deserted perhaps a thousand years ago, has been known for a century but could be reached only by muleback before the Guatemalan Air Force built a landing strip nearby a few years ago. Tikal was probably the largest ancient American city and of prime importance in the history of the Maya. The predominant buildings were temples of various sizes, several of which surrounded a 350-foot plaza. Access to the temples of the central area was provided by an elaborate network of graded roads. The discovery of Temple VI in 1951 was reported in ARCHAEOLOGY 6 (1953) 82-86.

The purpose of the Tikal project is to provide not only a center for the study of early American civilization but equally a place where all comers may visualize the former magnificence of this early city of the New World.

Americanist Congress at Copenhagen

The International Congress of Americanists will hold its 32nd meeting at Copenhagen, Denmark, August 8-14, 1956. The activities of the Congress will be divided into the following sections: American Indian ethnology, Eskimo ethnology, American Indian archaeology, Eskimo archaeology, linguistics, physical anthropology, exploration and colonization, folklore.

Papers on any subject within the scope of the Congress are invited. They must be limited to twenty minutes. Titles and abstracts of papers, together with particulars of lantern slides and other illustrative material, should be in the hands of the Secretary-General not later than May 1, 1956. Further information may be obtained by writing to: 32nd Internaional Congress of Americanists, c/o Jens Yde, Secretary-General, National Museum (Ethnographical Department), Copenhagen K, Denmark.

1955 Seminars in Archaeology

The Carnegie Corporation of New York sponsored a series of four seminars organized by the Society for American Archaeology, the funds administered by Tulane University. Subjects, personnel and meeting places were chosen by a committee of the Society, and the seminars were held last summer in Cambridge, Massachusetts; Washington, D. C.; Ann Arbor, Michigan; and Santa Fe, New Mexico. Six archaeologists, on the average, attended each of these meetings, which lasted from two to three weeks. In addition to the participants, an advanced graduate student was present as recorder, and before adjournment each group prepared a preliminary statement of its results. These reports are now being edited and will appear as a Memoir of the Society for American Archaeology.

The Cambridge Seminar (Gordon R. Willey, Chairman) studied prehistoric cultural contacts in various parts of the world, set up a typology of these, and analyzed the processes and results of the various interacting factors involved.

The Washington Seminar (Richard

Beardsley, Chairman) studied changing settlement patterns in American cultural evolution. It defined stages of development of the social group and assembled the economic, social, political and ceremonial correlates appropriate to each as well as archaeological features that might serve as indicators of these.

The Ann Arbor Seminar (Emil W. Haury, Chairman) studied cultural stability and instability through the important aspects of tradition. It opened another systematic approach to the study of culture change by examining the interactions of the many different kinds of factors which influence the development of traditions.

The Santa Fe Seminar (Jesse D. Jennings and Erik K. Reed, Co-Chairmen) set up a new review of Southwestern prehistory by analyzing this from the points of view of specialists in neighboring fields who also had experience in the Southwest itself. Thus, besides examining the role of the Southwest relative to other culture areas, it brought new interpretations to prehistoric cultural dynamics within this area.

Preliminary reports of the findings of the seminars were presented at a symposium at the Boston meetings of the American Anthropological Association by Erik K. Reed, Albert C. Spaulding, Raymond H. Thompson and Gordon R. Willey. The writer was Chairman of the Seminars Planning Committee.

ROBERT WAUCHOPE

"Yesterday's Worlds"

The new television program bearing this title, which provides fascinating glimpses into ancient cultures and societies, was inaugurated over Station WCBS-TV (Channel 2) on January 28th. A series which will continue for twenty-six weeks, it is presented in cooperation with CBS by New York University and the Metropolitan Museum of Art.

"Yesterday's Worlds" features the Metropolitan Museum's splendid collections on the arts and cultures of ancient Assyria, Egypt, Greece, Rome and other countries and cities of the Near and Far East. On the successive programs Prof. Casper J. Kraemer of New York University (who will be remembered for his work two years ago on a similar archaeological series, "Here is the Past") will have various specialists as guests.

The programs are being partially financed by the Educational Television and Radio Center established by the Ford Foundation. Film recordings of the series will be made available by the Educational Television and Radio Center for showings on educational stations throughout the country.

American Research Center in Egypt

The Center, incorporated in 1950, is the youngest affiliate of the ARCHAEOLOGICAL INSTITUTE OF AMERICA. During the past five years cordial relations have been established with Egyptian colleagues who have shown confidence in American leadership on the scholarly level, at a time when a broader basis of mutual understanding between the United States and countries of the Near East is urgently desirable.

Since the camp of the Harvard University-Boston Museum of Fine Arts Expedition at the Giza Pyramids was closed in 1947 after some forty years of activity under Dr. George A. Reisner, there has been no permanent American archaeological establishment in Egypt with the exception of the Oriental Institute's "Chicago House" at Luxor, which lies three hundred miles south of Cairo and has no fellowship program. The headquarters of the Center are in Cairo; most of its Annual Directors have held Fulbright Grants, but these grants unfortunately terminate in Egypt in the summer of 1956. The present Director, Mr. Bernard V. Bothmer, on leave of absence from the Boston Museum of Fine Arts, was reappointed as Fulbright Fellow for 1955-56. His activities have greatly increased local interest in the Center, on the part of Egyptian archaeologists as well as among the many Americans resident in Cairo. His museum lectures and his Sunday afternoon excursions to ancient sites have won enthusiastic response.

The Center's aims are (1) to establish permanent headquarters in Cairo with a Director appointed for a term of years and assisted by a small staff competent to expand its usefulness to American scholars and students undertaking research for which residence in Egypt would be advantageous, as, for instance, Egyptology, papyrology, art history, prehistory, Oriental history and studies in the Arabic, Islamic, Qoranic, Coptic, and Byzantine fields; (2) to send outstanding scholars to Egypt on an annual basis; and (3) to provide graduate fellowships to prepare a new generation of university teachers and museum curators without whom we cannot hope, in this country, to pursue effectively the study of man's past.

To accomplish these aims financial support is needed and is welcome in larger and smaller amounts. The Center's Newsletter, issued at intervals during the academic year, is sent to all members to keep them posted on archaeological matters in Egypt and the Near East. There are six classes of membership with dues as follows:

Regular Member—$5
Contributing Member—$10
Sustaining Member—$25
Associate of the Center—$50
Fellow of the Center—$100
Life Member (one payment)—$500

Checks should be made payable to the American Research Center in Egypt and sent to the Acting Executive Secretary, 147 Brattle Street, Cambridge 38, Massachusetts. Contributions to the Center are deductible from Federal income tax returns.

Thirteenth Plains Conference

The Thirteenth Plains Conference for Archeology met at Lincoln, Nebraska, November 24-26, 1955. Dr. Donald J. Lehmer served as Chairman and Richard P. Wheeler was Program Chairman. Fifty-three persons registered.

The first session was devoted to field work done in the summer of 1955. Of the twelve reports, eight were concerned with reservoir salvage work in the Missouri Basin, underscoring the fact that the river basin salvage program continues to be important in the Plains despite severely curtailed Federal support. The main salvage effort is now in the section of the Missouri valley to be inundated by the 250-mile-long Oahe Reservoir in North and South Dakota. Two years remain before this reservoir begins to fill, and five years more before it is full; but the fortified Indian village sites which dot the sides of the valley, representing a complex history the outlines of which are still dim, can scarcely be sampled in that time unless the scope of the work can be enlarged. Many of the

sites require several seasons' work. Reports were given of investigations at six of these sites sponsored by the National Park Service, the River Basin Surveys of the Smithsonian Institution, the State Historical Society of North Dakota, the University of South Dakota and the South Dakota Archaeological Commission. Downstream from Oahe, the 130-mile-long Fort Randall Reservoir is nearly full, but the University of Kansas and the Nebraska State Historical Society reported work at sites still intact in the upper reaches of the reservoir area. All these investigations are serving to delineate a history of the formation and development of horticultural communities in the valley of the Middle Missouri beginning no later than the thirteenth century A.D. and continuing to the nineteenth century.

Important reservoir salvage archaeology in the state of Missouri was reported by the University of Missouri and the Missouri Archaeological Society. Other work in their respective states was reported by the Universities of Iowa, Nebraska and Missouri.

The second session began with a challenging paper by a palaeobotanist. In his paper, "Vegetation of the Plains Before the Advent of Man," Maxim K. Elias introduced evidence that the Plains has been a grassland ever since Tertiary times. This thesis contrasts with the suggestion made elsewhere that the Plains was wooded until burned over by man. The rest of the session was devoted to a panel discussion of "Turin Man," the burials found in a gravel pit at the eastern edge of the Missouri River floodplain at Turin, Iowa, north of Omaha, in August and September, 1955. At present all that can be said regarding the dating of these four skeletons is that they are Mankato or Cochrane; that is, they fall somewhere between 10,000 B.C. and the beginning of our era. Further work, it is hoped, will permit more specific dating.

The third session was devoted to a variety of subjects. W. Raymond Wood, speaking on "Perforated Elk Teeth on Northern Plains Indian Costumes," brought together archaeological and historical data in a trait distribution study. James H. Howard discussed "The Mescal Cult of the Southern Plains, a Precursor of Peyote," showing that peyotism includes important traits already present in Plains ritual. In a paper entitled "The Concept of 'The Plains' and the Human Relations Area Files," David B. Stout discussed the implications of different sorts of comparative studies. Malcolm J. Arth, presenting "Recent Field Work Among the Omaha: A Progress Report," described the early stages of a socio-economic study of the Omaha tribe. H. M. Wormington reported on "Archaeological Investigations in Alberta," a statement of pioneer archaeological research in the western Canadian Plains.

The final session was a panel discussion of "The Concept of 'The Plains' in Anthropology." Dr. Lehmer was in the chair, and the panelists were John L. Champe, E. Mott Davis, Preston Holder, Marvin F. Kivett, Richard P. Wheeler and H. M. Wormington. Each panelist spoke on a particular period in the human history of the Plains and assessed the meaning and usefulness of "The Plains" as a culture area concept in studies of that period. The statements were arranged chronologically, beginning with the Early Lithic and ending with the Historic period. An informal discussion followed the statement of each panelist. The session was so animated that the Chairman had difficulty bringing it to an end, well after the scheduled hour.

At the business meeting, an evening affair at the beautiful modern museum of the Nebraska State Historical Society, Henry W. Hamilton of the Missouri Archaeological Society made a strong plea for more public funds in support of salvage archaeology. Richard P. Wheeler of the River Basin Surveys, Smithsonian Institution, was elected Chairman of the forthcoming Fourteenth Plains Conference for Archeology.

E. Mott Davis

Correction

In our Winter 1955 issue Dr. Homer A. Thompson, Director of the American excavations in the Athenian Agora, stated that 150 man days of labor were required to flute each column of the Erechtheum in 407/6 B.C., in contrast to 76 days' work now required for fluting a column of the Stoa of Attalos, presently under reconstruction.

Dr. Thompson informs us this was an error—actually 350 days was the time needed to flute an Erechtheum column. The great discrepancy between 76 days and 350 is accounted for by a number of factors: the Stoa columns are somewhat shorter; the concave flutes on the Erechtheum columns extend their entire length while the Stoa flutings stop at about one-third the height of the column, the lower third being just lightly faceted; and finally, the surface finish on the Erechtheum is much smoother.

REVIEWS OF RECENT BOOKS

THE SCROLLS FROM THE DEAD SEA, by EDMUND WILSON. 121 pages. Oxford University Press, New York 1955 $3.25

Anyone who has tried unsuccessfully to secure a copy of *The New Yorker,* May 14, 1955 issue, will be grateful to the Oxford University Press for publishing this small volume on the Qumran Scrolls. The popular response to Edmund Wilson's feature article in *The New Yorker* served notice to many a scholar who has been frantically trying to keep up with the flood of technical books and articles dealing with the scrolls, that many persons had not heard of the fabulous discovery of manuscripts near the Dead Sea. Thanks to Wilson's readable and stimulating article, now reprinted in book form with several minor changes, this situation is being corrected.

With a reporter's eye for the human interest involved, and a remarkable aptitude for interpreting the results of scholarly endeavor, the author traces the story of the scrolls from their discovery by a Bedouin boy in 1947 to the sale of four of the scrolls in 1955 to Israel for a reported $250,000.

In seven brief chapters bearing titles which are only partially descriptive of the contents, Wilson discusses the circumstances of the discoveries in the caves and the Qumran monastery together with some of the literary evidence which has to do with the Essenes who produced the scrolls about two thousand years ago.

The views of many of the leading experts in the field are reported, including those of Albright, de Vaux, Harding, Burrows, Cross, Brownlee, Sukenik, Dupont-Sommer and others. The author's discussion of the dating, interpretation and significance of the scrolls by these men is, on occasion, spiced with thumb-nail sketches of several of the archaeologists. Friends of Father de Vaux will be surprised to read that the famous French archaeologist has "brown eyes of the high powered headlight kind," "boarlike nostrils and beard," and that he climbs over the excavations at Qumran "on short legs like a goat."

Interest in the subject of the scrolls led the author to visit Jordan and Israel. An excellent word picture is painted of the "great and terrible wilderness" where the manuscript caves and the monastery of Qumran (now almost completely excavated) are located near the northwest shore of the Dead Sea. Wilson's description of the dreary area with the scorpions, vipers, crows, hawks and mountains flecked with goats omits only one feature, namely, the malarial mosquitoes.

Although Wilson relies rather heavily upon the views of Dupont-Sommer concerning the influence of the Essene community upon Jesus, John the Baptist and the early Christian community, he does point out that there are many significant differences between the cultic practices and theology of the Essenes and the early Christians. Few scholars today would deny Wilson's main theme that the new evidence from the scroll materials makes possible and necessary a restudy of the two centuries before and after Christ.

When the copper scrolls are opened and deciphered, and the mass of canonical and extra-canonical texts has been published, it is to be hoped that Wilson will write a sequel to this book and bring his readers up to date.

WILLIAM L. REED
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EVERYDAY LIFE IN BABYLONIA AND ASSYRIA, by GEORGES CONTENAU (translated from the French by K. R. and A. R. MAXWELL-HYSLOP). 324 pages, 24 plates, 31 text drawings. St. Martin's Press, New York 1954 $5.00

Professor Contenau has managed to pack an astonishing wealth of information into this reasonably priced volume. Out of the long range of Mesopotamian history he has wisely

elected to confine his attention primarily to the comparatively brief span from 700 to 530 B.C. In this way he avoids creating the mistaken impression of timeless repetition in the cultural patterns of the area, which frequently is a serious defect in similar accounts. Occasionally, of course, he finds it necessary to range far beyond his chosen time limits for the sake of completeness, including even such subjects as the development of writing at the beginning of civilization in Mesopotamia, some two and a half millennia earlier. In fact, he has provided a compact summary which is useful, both as a reference text and as an introduction, for a much wider period.

The period he has selected to emphasize was a critical and decisive one, embracing both the apogee of the Assyrian empire in northern Mesopotamia and the return to prominence under Nebuchadnezzar of Babylon in the south. Fortunately, the sources for this time are voluminous, including royal annals, ritual texts, hymns, private contracts, private and official correspondence, the accounts of some of the earlier Greek traveler-historians, and perhaps most important, King Ashurbanipal's great library, embracing most of the formal learning of the age. As Contenau observes, we cannot in reason expect more from the tablets. Moreover, there are also the archaeological remains, the fruit of a century of digging at Nineveh, Nimrud, Khorsabad, Ashur and Babylon, to list only a few sites.

It is the richness and variety of this material that make possible the author's detailed discussions of The Structure of Society, Everyday Life, Labour and Trade, King and State, Mesopotamian Thought, and Religious Life, to name only his more general subject headings. Serving as an important adjunct to these descriptive accounts are the plates, which were selected by the translators insofar as possible to illustrate particular points in the text. The translators have also supplemented the original bibliography with a number of additional references in English, and it now will serve as an excellent point of departure for additional reading and work.

In some respects, however, the book is a disappointment, falling short of the promise which the wealth of documentation gives. Interpretative treatment of the material is held to a minimum, with the result that the culture and social order of the period are seen largely as bodies of discrete traits, for the assessment of whose quantitative importance and interrelationships the reader is largely left to his own devices. It is true that little can be said in this direction without encountering complex problems of analysis about whose solution there may be considerable disagreement. Nevertheless, greater effort should have been made to integrate the mass of data into a functioning, intelligible system. Only in this way, at least, could the work have been made really useful to the non-professional or to the specialist in some other discipline who is searching for comparative material. In particular, the section on Mesopotamian Thought—which Contenau rightly tends to regard as the heart of the book—seems disjointed and episodic when compared to the recent treatment of the same subject by Frankfort and others in a Pelican publication entitled "Before Philosophy."

ROBERT M. ADAMS
University of Chicago

THE FARWELL COLLECTION, by FRANKLIN P. JOHNSON, viii, 76 pages, 90 figures. Cambridge, Massachusetts, 1953 (Monographs on Archaeology and Fine Arts Sponsored by the Archaeological Institute of America and the College Art Association of America, VI) $4.15

Most of this pottery comes from graves excavated by Mr. Farwell near Foggia during the Italian campaign of the recent war. Records were poorly kept or not at all. Mr. Johnson has put himself to considerable trouble to reconstruct what grave groups he could. His account of the matter arouses, besides sympathy, an acute uneasiness which is allayed only in the case of Graves XIII and XIV. It would have been good to have an explicit statement of the evidence for the attribution of each particular piece to the particular grave—whether photograph, or label, or Mr. Farwell's memory, or some combination of these.

The vases, mostly Daunian, handmade and wheelmade, belong to the attractive plainer class with linear and occasional floriform pattern-work. The anthropomorphized decoration of the high-swung handles of early bowls is pleasing for its lack of verisimilitude in contrast to the ornate figure-work the ware affected in the third century. The date of the Farwell pottery is held to range from the sixth through the fourth century B.C. The Italiote vases which occur in several grave groups yield little by way of definite chronology.

In appendices Mr. Johnson publishes several Daunian vases in the collection of the University of Chicago. The earliest is a fine piece of Pryce's pictorial class; its date, in Johnson's opinion, is early fifth century. The second is a third-century askos with linear pattern-work. The third is the handled bowl with the baffling inscription concerning one Arkesilaos. The problem of the interpretation of the text, apparently part Greek and part Messapic, is not advanced. Only for the end of the inscription are photographs given, and of these only one is readily legible, but it makes clear that the first letter of the last word of Kretschmer's text (*Glotta* IV [1912] 206) is not to be transcribed T as suggested in *The Pre-Italic Dialects of Italy* II, page 292, note xxviii (further, *ibid.*, page 565).

I take this opportunity to figure a Daunian askos in Venice, California, a

Daunian Askos in Venice, California

contemporary of the third-century Chicago askos (WT 40). Purchased in Rome in 1928, it is now at the Venice High School. The vase is wheelmade, 28.6 cm. high. There is a strainer at the bottom of one spout, and at the top and bottom of the other. The decoration is in matt brownish-black paint. There are

traces of matt red inside both spouts, and of matt red fill on the band above the wave pattern on each spout and on the bands framing the floral pattern on the body. The other side of the vase is very much like the one illustrated.

A careless excavation has resulted, paradoxically, in a careful, well documented publication. The material can play a useful role when a definitive study of Daunian is made.

PAUL A. CLEMENT
University of California
Los Angeles

ANCIENT SCIENCE AND MODERN CIVILIZATION, by GEORGE SARTON. 111 pages, 2 diagrams, 1 table. The University of Nebraska Press, Lincoln 1954 $2.50

GALEN OF PERGAMON, by GEORGE SARTON. vii, 112 pages, 1 plan, 1 map. The University of Kansas Press, Lawrence 1954 $2.50

The dean of historians of science and one of the most prolific of American scholars here warms up to the task of writing Volume Two of his projected eight-volume *History of Science.* That Dr. Sarton conceives of the history of science in its broadest sense was evident when he devoted separate chapters in Volume One of that work to such men as Plato and Xenophon. In dealing with ancient science he is fully aware of the importance of archaeological evidence, as we see in his discussion of the Asclepieum at Pergamum and in his attempt to ascertain by correspondence what has happened to the Pergamene sculptures formerly exhibited in the Berlin Museum.

The first volume under review consists of three essays: "Euclid and His Time"; "Ptolemy and His Time"; and "The Decline of Greek Science and Culture." Four figures, Euclid, Ptolemy, the mathematician Pappus and the physician Oribasius, are handled in Dr. Sarton's usual manner, that is, with considerable attention given to intellectual and physical backgrounds and to the influence those men have had in later ages. We have all at some time read statements to the effect that Euclid's *Elements* has been the most enduring textbook and one of the finest examples of logical exposition ever produced, and have accepted the statements on authority. Dr. Sarton substantiates these assertions in a single example, showing how mathematicians from Ptolemy and Proclus to Legendre and Gauss have tried unsuccessfully to eliminate or provide a substitute for Euclid's fifth postulate.

Galen, the subject of the second volume, is a prodigious figure, a polymath with many facets, whose extant writings fill twenty-two stout volumes of the Kühn edition and also include some treatises in Arabic translation, the Greek originals of which have been lost. Many modern scholars have expressed learned opinions about Galen but very few have undertaken the arduous efforts required to gain a real appreciation of the man such as is demonstrated in this volume. In addition to chapters on Galen as anatomist, physiologist, physician and surgeon, there are also discussions of such vital topics as Pergamum as a medical center, the various medical sects in Galen's time and the non-medical writings of Galen. The bibliographical data throughout are most impressive. Appendices include lists of Galen's contemporaries mentioned in the text, of Galenic treatises translated from the Arabic and of Galenic texts available in English translation. The last list is the

most valuable and corrects a common misapprehension that Brock's translation of *On the Natural Faculties* was the first Galenic treatise to appear in English. Dr. Sarton's volume may be described as a superb introduction to the study of Galen.

William H. Stahl
New York University

ANCIENT ISRAEL, by Harry M. Orlinsky. 201 pages, 5 maps, 1 chart. Cornell University Press, Ithaca, New York 1954 $2.50

This short book was first written as one of a series in *The Development of Western Civilization.* Owing to increased interest in recent archaeological discoveries in the Near East it has been published independently.

The book consists of seven chapters, a chronological summary and suggestions for further reading. In the first six chapters is briefly reviewed the history of Israel from the early beginnings to the end of the Persian period. The last chapter is devoted to an evaluation of the Hebraic spiritual heritage and especially the prophetic contribution.

In such a brief essay one can hardly expect exhaustive treatment of such a vast subject. However, there are several valuable contributions to the literature dealing with the Biblical period. Until now there have appeared numerous studies, by authors like W. F. Albright and V. Gordon Childe, dealing with the origins of early societies in the Middle East. Such works are often too technical for the layman. But Professor Orlinsky's *Ancient Israel* restates the story of Israel very briefly and in popular terms so that the beginner can benefit by this new knowledge. Likewise, he treats the historical account of the Biblical period in the light of recent discoveries.

The chapter dealing with the Hebrew spirit and the prophetic movement is perhaps the most controversial. Here the author reviews and evaluates the prophetic tradition. He stresses especially the significance of the Covenant as an important symbol of social control and ethical and moral conduct. Not all readers will agree with his treatment of the messianic concept in ancient Israel (pages 160-161) where he denies the existence of a messianic tradition before the Roman period. Nor can one completely agree with some of his historical assumptions regarding the origin of Israel, the Egyptian bondage and the Exodus.

However, despite some technical objections the specialist may find, *Ancient Israel* is a fine handbook for "basic" Biblical history, and makes a definite addition to the educational materials in this field.

I. Keyfitz
Bible College
University of Missouri

THE SPRING OF CIVILIZATION. Periclean Athens, edited by Charles Alexander Robinson, Jr. 464 pages, 74 plates, 2 maps. E. P. Dutton, New York 1954 $7.50

To achieve his purpose of presenting in one volume material which will "suggest to the layman the essential meaning of Greece," Mr. Robinson has restricted his volume to Periclean Athens, has cut his own commentary to a minimum and has devoted most of the book to selections from primary sources so that the civilization is allowed "to speak for itself."

Translations of six Greek tragedies and of Plato's *Apology* and *Symposium*

represent the literary and philosophical achievements of the Periclean era. As always when a selection has been made in the face of so much material, readers may wonder at the exclusion and inclusion of certain works (*e.g.*, why is comedy not represented?), but the editor has wisely resisted the temptation of trying to get a wider representation through excerpts, and has included only complete works.

The most valuable and original section of the book is the survey of Periclean art, presented through seventy well chosen and skilfully taken photographs. The fact that the illustrations are of details as well as of complete monuments lends this picture survey a greater usefulness. This section alone of the several sections of the book presents material that is not available elsewhere—often in a cheaper, more complete form.

The editor has presented a piecemeal account of the history of this period by interweaving his own narration of the Peloponnesian War with large sections of Jowett's translation of Thucydides' *History*. To complete this one-volume representation of Periclean Athens, the Spring of Western Civilization, there have been included a useful but overcluttered map of ancient Greece, short, generalizing prefaces to each of the sections on Drama, Philosophy, and Art, a general introduction and a brief chronological summary of the history of Greece from the third millennium to the fourth century B.C.

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PROTO-LIMA, A MIDDLE PERIOD CULTURE OF PERU, by A. L. KROEBER. Appendix: Cloths, by DWIGHT T. WALLACE. 157 pages, 93 figures, 8 tables. Chicago Natural History Museum, Chicago 1954 (Fieldiana: Anthropology, Volume 44, Number 1) $4.00

In 1925-26 A. L. Kroeber made a most productive field trip to Peru. This expedition has produced *Ancient Pottery from Trujillo, The Northern Coast, The Cañete Valley,* and now the present work, as well as Lila O'Neale's *Textiles of the Early Nazca Period.* One cannot quarrel with the volume of valuable data secured by the first Marshall Field expedition to Peru. It was an extraordinarily productive trip but perhaps overextended, not in time but in objectives. Kroeber himself says in *Proto-Lima* that he had to hasten his Rimac Valley excavations in order to proceed southward to the Cañete and Nazca regions. Consequently, and one suspects, also because of the time lag between excavation and publication, *Proto-Lima* suffers in comparison with Kroeber's other contributions.

The chapters about Proto-Lima burials excavated by the author and the cultural findings resulting from these are in the main complete, well presented, and leave practically nothing to be desired, although the grave sampling was small. However, the description of the site itself and the accompanying photographs and diagrams fail to do justice to Maranga, perhaps the most important ceremonial center of the Pre-Tiahuanacoid Central Coast. Maranga deserves special attention since it lies about midway between the capital city of Lima and Callao, the principal port of Peru, and this area is being rapidly built up, with resulting inevitable damage to archaeological monuments. Time and progress have already brought about significant changes in the site.

Kroeber devotes some twenty pages

to comparisons and conclusions, comparing his findings to those of Jacinto Jijón y Caamaño encountered simultaneously in an adjacent excavation. He does not, however, resolve the confusion resulting from Jijón's rather peculiar method of presenting his results, nor does he in this and in accompanying comparison with D'Harcourt's work on similar ceramics, endeavor to clear up confusing nomenclature.

Kroeber's conclusions, although in the main sound, are presented without the data necessary for the reader to judge for himself. Along with this, one notes an absence of facts which become evident with greater available time to study the Maranga or Proto-Lima culture. In this connection, while Kroeber has utilized the publications of contemporary researchers, it is surprising that later studies of the Central Coast do not occupy a more prominent place in his calculations.

Physically, the work is well presented: the illustrations are clear and excellently reproduced. Mr. Dwight Wallace is to be congratulated for his appendix on cloths. Literature on textiles from this area in this epoch is scarce, and the addition of further material is most welcome.

It is a great tribute to the high quality of an author's work when one is forced to say that he suffers in comparison with himself. Still, in spite of the deficiencies mentioned, *Proto-Lima* is definitely another of Kroeber's worthwhile contributions to the literature of Andean archaeology.

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BRIEF NOTICES

ART OF ASIA, by HELEN RUBISSOW. 237 pages, 84 plates, 2 end maps. Philosophical Library, New York 1954 $6.00

This slim volume attempts the almost impossible, a rapid survey of the art and archaeology of all Asia. The author covers India, Southeast Asia, the Far East, the Eurasiatic steppes, the ancient as well as the mediaeval Near East, and even penetrates into the world of Byzantium. The book itself is attractive and the illustrations are chosen for individual effectiveness rather than as typical examples of the art of the various cultures.

CASE ED ABITANTI DI POMPEI, by MATTEO DELLA CORTE. Second edition. xxxii, 436 pages, 2 plans. L'Erma di Bretschneider, Rome 1954 3500 lire

The former Director of the Pompeii excavations offers a second edition of "Houses and Inhabitants of Pompeii," taking up in detail each street and the dwellings it includes. A reference work for specialists.

SARCOPHAGES PALEOCHRETIENS D'ARLES ET DE MARSEILLE, by FERNAND BENOIT. 88 pages, frontispiece, 49 plates. Centre national de la recherche scientifique, Paris 1954 (Fouilles et monuments archéologiques en France metropolitaine, Supplément à *Gallia,* V)

This account of carved marble sarcophagi dating from the fourth and fifth centuries of our era includes those

now in the museums of Arles and Marseille. A discussion of types, technique and origins is followed by a catalogue of 122 items. Not all are illustrated.

DER SCHATZFUND VON GROSS BODUNGEN, by WILHELM GRUENHAGEN. 81 pages, 4 figures, 16 plates. Walter de Gruyter, Berlin 1954 (Römisch-Germanische Kommission des Deutschen Archäologischen Instituts zu Frankfurt a. M., Römisch-Germanische Forschungen, Band 21) DM 28

The final publication, complete with comparative study, of a Late Antique treasure found in central Germany. The treasure, unfortunately without archaeological context, consists of 21 Roman gold coins of the fourth and early fifth centuries A.D. and some fragments of silver plate.

THE ART OF PRIMITIVE PEOPLES, by J. T. HOOPER and C. A. BURLAND. 168 pages, 68 plates, 4 maps. Philosophical Library, New York 1954 $7.50

An attractive book, illustrated entirely from the collection of J. T. Hooper. The somewhat superficial text considers primitive art in terms of style, culture and diffusion, and barely skims the surface of the art of Oceanians, Northwest Coast Indians, Eskimos and Africans.

L'HEROISATION EQUESTRE, by FERNAND BENOIT. 146 pages, 28 plates. Editions Ophrys, Gap 1954 (Publications des Annales de la Faculté des Lettres, Aix-en-Provence, Nouvelle série, No. 7)

The theme is the "hero and the horse," an art motif which was widespread in antiquity, particularly in the Mediterranean region. The author shows, with a wealth of documentation, that it was not limited to one people, one religion or one period. The theme sprang from the burial, in prehistoric times, of the dead man together with his horse and it was always closely associated with popular religion.

4000 YEARS UNDER THE SEA. The Story of Marine Archaeology, by PHILIPPE DIOLÉ. 237 pages, 8 pages of plates, 1 map. Julian Messner, New York 1954 $4.50

This is a translation of *Promenades d'archéologie sous-marine* which appeared in France in 1952. The original edition is much superior: it is more complete, its photographs are far larger and clearer, its title is infinitely more appropriate. Nevertheless, if you want to know the story of marine archaeology this is a useful book with which to start.

EXCAVATIONS AT NUZI. VOLUME VI. The Administrative Archives, selected and copied by ERNEST R. LACHEMAN. xv pages, 177 plates. Harvard University Press, Cambridge 1955 (Harvard Semitic Series, Vol. 15) $7.50

This sixth volume of cuneiform material from Nuzi consists of autographed copies of texts from the administrative archives of the city. No transliterations are included, but the plates are accompanied by a preface, a table of contents of the tablets reproduced and a register of the tablets. Besides documents such as an order concerning the protection of the territory against foreign invaders, and musters of soldiers, there are inventories of arms and armor, chariots, horses, garments, metal and wood objects, trees and lumber, receipts for wool, oil, grain and so on, and various memoranda.

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